



Concept Study

Airport Expansion

Sonoma County Airport
Santa Rosa, California



Report prepared by

**Mead
& Hunt**

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1. Overview

A. Introduction

This study is meant to inform the near-term and long-term expansion of Charles M. Schulz Sonoma County Airport (STS or Airport). STS has grown beyond the capacity of their current terminal facility. Plans for expanded routes and additional airline partners accelerate growth projections and underline the need for near-term terminal expansion and long-term planning. An expanded STS will better meet the needs of increasingly globally-interconnected Sonoma County travelers, and serve as a gateway to a region with a rising profile as a tourism destination. Design solutions will rely on analysis of current and future airline route scenarios and likely passenger volumes, along with the unique character of Sonoma County.

Objectives

The project objectives include: 1) Meeting the immediate and near-term needs of an expanding STS; 2) Establishing a project budget for construction costs of the near term improvements; 3) Establishing a design character for the Airport that signifies its role as an entrance to a vital region for business and tourism; 4) Planning for a phased expansion that will minimally impact operations at STS; and 5) Anticipating future needs and beginning a pattern of design that will support a larger terminal area plan.

Near-Term Expansion

The current terminal space will meet only 33% of projected needs for 2025. Near-term anticipated enhancements include: a regulation security checkpoint; a new, larger holdroom; an increased ticketing area with capacity for multiple carriers; an increased baggage screening area; additional rental car counter space; and an improved baggage claim. These areas will be distributed within the current terminal space and a new expansion. The terminal remodel/expansion is anticipated to include 7,000 sf of renovation, 12,700 sf of new building, and corresponding site improvements. With these additions, the terminal space will be at 60% of its projected 2025 needs.

Project Budget

A rough order of magnitude construction budget is from \$5,627,561 to \$7,743,404. Soft costs are anticipated at \$1,800,819 to \$2,477,889. The opinion of probable costs for the near term expansion is from \$7,430,000 to \$10,230,000 in 2015.

Design characteristics

Sonoma has a rich history and agricultural heritage, as well as abundant natural beauty and a mild climate. Today, it is primarily known for its wine production, with 13 approved American Viticulture Areas and more than 400 wineries. Over 7.5 million tourists visit each year, spending more than \$1.5 billion annually. The proposed holdroom is a transitional space between the flying experience and the place that is Sonoma County. The architectural expression of the holdroom seeks to capture the character of the region and act as a significant point of context to the traveling public. Modern and sustainable design approaches combine to create a light-filled space with views of airplanes and the runway. Connection to regionally-inspired exterior spaces and opportunities to purchase local fare and products will also enhance the travel experience of all airport users.

Phasing

The terminal will be required to remain operational during construction to maintain commercial air service. Construction will be executed in five primary phases (**Appendix A**).

Phase 1:

- Construction of a structure to the south of the existing holdroom, which will provide flex space to accommodate phasing and later augment airport functions.
- Relocation of holdroom and security checkpoint to flex space during construction of the new holdroom.

Phase 2:

- Relocation of the existing holdroom to the north of its current location, to be repurposed for airline support space.
- Construction of new holdroom and security checkpoint.
- Connection of new holdroom to existing terminal.
- Ramp improvements.
- Relocation of holdroom and security checkpoint to new construction.

Phase 3:

- Relocation of rental car agencies and baggage claim device to flex space.
- Construction of canopy and circulation gallery at the south end of the current baggage claim hall.

Phase 4:

- Remodel of existing baggage claim hall into ticketing hall.
- Addition of baggage makeup extension and new bag belt.

Phase 5:

- Remodel of the existing ticketing area to concessions/office space and terminal vestibule.

Long-Term Outlook

The near-term improvements are intended to sustain STS during its growth over approximately the next decade. Following that time period, increased commercial air service is anticipated to require a significant terminal expansion and/or new terminal. Terminal area needs for 2025 and 2050 are anticipated to be 46,409 sf, and 56,486 sf to 104,447 sf respectively (**Appendix F**). The near-term additions of the new holdroom and security checkpoint are to be developed in concert with long term planning needs. These spaces will form the initial piece of a re-imagined identity for 21st century air travel in Sonoma County.

2. Passenger Growth Analysis

A. Near-Term Growth Projections

The following is a brief summary of Mead & Hunt's analysis for potential future air traffic through STS in the coming decade. The analysis was based on historical growth trends, the 2012 master plan forecasts, conversations with the Airport on likely near-term expansion, and FAA Terminal Area Forecasts (TAF).

Potential Schedule Growth

Alaska Airline's current flight service commitment serves as the starting premise for potential future flights at the Airport. Alaska currently has 7 flights in service at STS, with a commitment to reach 8 by next summer. In addition, Alaska is currently in conversation with the Airport to increase its flight capacity to 13 flights a day. San Diego and Seattle or Orange County are likely destinations given Alaska's plans to expand the latter two hubs--putting the Airport on track for 8 flights a day in 2016, and potentially increasing to 10 flights per day by 2017.

Two new entrant carriers were included for potential new market service from STS based on discussions with the Airport. An additional five flights, about one every two years, would fill out the schedule to the year 2025, for a total of 18 daily departures. While this exceeds master plan forecasts, the Airport considers the new entrant carrier flights likely to develop within the ten year period.

A 15 flight schedule is detailed in **Appendix B**. This was based on the original planning data of Alaska Airlines growing to 10 flights per day. The additional 3 flights currently being proposed by Alaska Airlines can be reasonably accommodated within the projections of this on-ground scenario.

The Airport has also indicated that they are in discussions with a carrier for service to a resort destination. This new market service would begin when the first phase of the terminal expansion and renovation is opened and the terminal is able to accommodate larger narrow-body aircraft. Gaining this service would increase the Airport's overall number of weekly flights, with the potential to grow to six to seven day-a-week service.

Passenger Arrivals Curves/Earliness Distributions

The Airport has identified a peak-hour facility demand based on three flights during the busiest time period. This figure relies on the Airport's understanding of future service opportunities, aircraft size, and number of passengers, and will determine terminal component sizes.

In order to model passenger occupancy in the secure holdroom, passenger arrival curves and earliness distributions are used. These are approximations of passenger arrival times at the terminal prior to scheduled flight departures. These data are key to assisting terminal planners and designers in determining how much secure holdroom space is required by the operation, by helping to understand how overlapping departing passenger populations affect holdroom occupancy and capacity.

The graph contained in **Appendix C** was derived from passenger arrival data, compiled as a composite distribution from similar airports along with input from STS on local patterns of passenger behavior. The distributions reflect a relatively narrow window within which passengers arrive at the Airport. This is not unusual at airports where pre-departure processing is well-known, allowing passengers to arrive at the Airport closer to their departure times than is typical.

STS 2025 Potential Schedule Departing Passengers and Holdroom Capacity

Anticipated passenger peak holdroom occupancies, as derived from the passenger arrivals analysis and based on the potential flight schedule scenario to 2025, are noted under **Appendix D**. While the holdroom will likely see average maximum occupancies of around 150 passengers throughout the day, a much larger peak of approximately 250 passengers is expected during the morning. This is in anticipation of a larger narrow-body aircraft operating along with two DHC-8-Q400 aircraft in operation today, due to airspace slowdowns. The secure holdroom will be sized to accommodate this larger volume peak while balancing with more typical loads of the current schedule. Utilizing a typical modifier of 80% of the larger peak (accounting for passenger transiency, usage of concessions and restrooms, etc.) yields a design figure of 200 seats.

Terminal Space

Appendix E compares the proposed plan of December 15th 2015 with the FAA's advisory circular recommendation of square footage allocation for a peak occupancy of 272 passengers. The proposed holdroom is projected at 75% of the advisory. Ticket areas will be at 54% of the advisory. Security screening area will be at 66% of the advisory (though areas for screening equipment will be sufficient for two security lanes). Car rental areas will be at 100% of the advisory. Baggage claim area will be at 66% of the advisory. Public circulation will be at 46% of the advisory. The smaller amount of proposed space versus FAA advised space is based on minimizing the square footage impact of the near-term renovation to match funding, with the ability to better expand in the future.

B. Long-Term Projections

Terminal Areas – Long Term Scenarios (Appendix F)

Standard terminal area forecasts extend out 20 years. This study projected terminal area needs 35 years out to establish approximate areas of growth for the terminal, airside ramp, and landside parking/vehicle circulation. Looking out to 2050, these tables present three different growth scenarios, based on passenger growth. The wide disparity in possible passenger traffic and resulting space needs highlights the need for a future terminal master plan with the flexibility to adapt accordingly. Attention was given to the current project design for eventual integration with long-term growth.

3. Design Approach

A. Near-Term Solutions

The following building layout represents an efficient approach to meeting anticipated short-term needs (10 years), while anticipating long-term growth scenarios and establishing a new design vocabulary for the Airport. The site plan (**Appendix G**) displays the proposed expansion and remodel of the existing Airport

in proximity to scheduled runway pavement and grading projects. **Appendix H** displays area calculations of Airport space with remodeled and added square footage.

Passenger Security Checkpoint

A new area will be provided for a security checkpoint to meet TSA standards, consisting of two lanes of security screening as well as a private screening room. The queuing area will be expanded according to TSA recommended space allowances, including an express lane for PreCheck and frequent flyers. A lane will also be established to allow passengers to return from the security check point to the pre-secure area without backtracking through the queuing lanes.

Holdroom

The option presented to the Airport on March 11, 2015 (**Appendix I**) provides 200 seats along with three gates, bathrooms, and space for concessions. The architectural character proposed for the new holdroom and future development represents the region's winemaking industry and agricultural heritage, while employing the materials and amenities of a modern airport. The design takes advantage of natural lighting and connection to exterior spaces, providing a gracious transition for departing passengers awaiting their flights and a place of arrival for future travelers to Sonoma County.

Ticketing

Additional airline ticketing positions will be required to accommodate expanded air service and future airlines. The ticketing hall is proposed to move into the current baggage claim area to allow for additional counter positions, additional passenger queuing area, and to relieve congestion from adjacent circulation. Two options were studied (**Appendix J**). Option 1 is the preferred approach, allowing for the new ticket counters to access baggage screening via a new bag-belt, by expanding the Baggage Make-Up area westward. It also allows for better reuse of existing spaces by shifting the bag belt location closer to the new ticket counters. Option 2 makes use of the existing bag belt, but will require passengers to return through the entry to the ticketing lobby to drop off baggage, as well as additional staffing at a consolidated bag drop.

Baggage Claim Area

Baggage claim functions will be moved to the flex space structure during Phase 3 of construction (**Appendix K**). Arriving passengers will have easy access to the bag claim area located within the western half of the structure, and will then proceed to either the adjacent car rental counters or exit the structure and enter the Airport terminal through the expanded circulation gallery (Phase 3). An expanded bag belt will better serve passenger demand from larger aircraft.

Car Rental Counters

Car rental counters will be moved to the eastern half of the flex space structure during Phase 3 of construction (**Appendix K**). Space will accommodate four agencies and offices, with two positions per agency desk. The car rental counters are placed within convenient access of the expanded gallery space leading into the Airport terminal.

Offices and Support Spaces

Current offices within the existing terminal will be renovated and expanded to provide airline offices for Alaska and future carriers, a TSA break room, and a com room. Additional remodeled area at the current ticket counters may be converted to additional office space or additional concessions space as the Airport's needs dictate. The existing modular buildings that make up the holdroom will be located north of the terminal to accommodate office use.

Circulation Gallery

Appendix L displays visualizations of how an expanded circulation gallery would complement the remodeled ticketing area. This gallery would provide a connection between the flex space structure and the Airport entrance, relieve congestion at the entrance and remodeled ticketing lobby, help to control heat gain in the remodeled ticketing lobby during warmer months, and also provide protection for arriving passengers from inclement weather.

Flex Space Structure

Earlier design approaches to expansion at STS determined that expanded Airport support functions could not be adequately accommodated by the existing facilities. Additionally, the constraints of the existing facilities would pose significant hurdles to project phasing and would likely impact Airport service. A structure is proposed to facilitate the phasing of the project, first serving as a holdroom and security checkpoint during construction of the new facilities, then housing the rental car and baggage claim areas and, finally, serving as additional holdroom capacity or Airport support space.

Appendix K details a 100'x 40' layout. It provides for one TSA security lane and seating for approximately 181 passengers during construction of the new holdroom, and expanded baggage claim plus four car rental desks upon completion of new holdroom construction. Smaller footprints were previously explored, but the current iteration is considered minimal to provide adequate baggage claim area and bag belt frontage.

Three construction options are being explored: a tensile tent structure, a structure erected from modular SIP panels, and a more conventional, stick-built structure. In general erection time will be faster for the tensile and SIP structures than the conventional-built option. Costs will be lowest for the tensile structure, while comparable for the SIP and conventional-built options.

B. Long-Term Vision

The project will establish a new design vocabulary and will integrate with a future campus of Airport facilities, poised to anticipate and adjust to long-term needs. **Appendix M** displays the current project as the first piece of future Airport development. This campus approach allows for flexibility, as well as shapes outdoor spaces to serve as airside passenger amenities.

Arrival to the Airport will include curbside drop-off and pickup, and provide convenient access to circulation along the landside zone of the Airport (including ticketing areas, car rental desks, waiting and concession areas, and baggage claim). Two vaulted galleries will provide strong visual connection to the airside zone of the Airport. Security will be expanded up to four lanes and include post-screening transition areas and

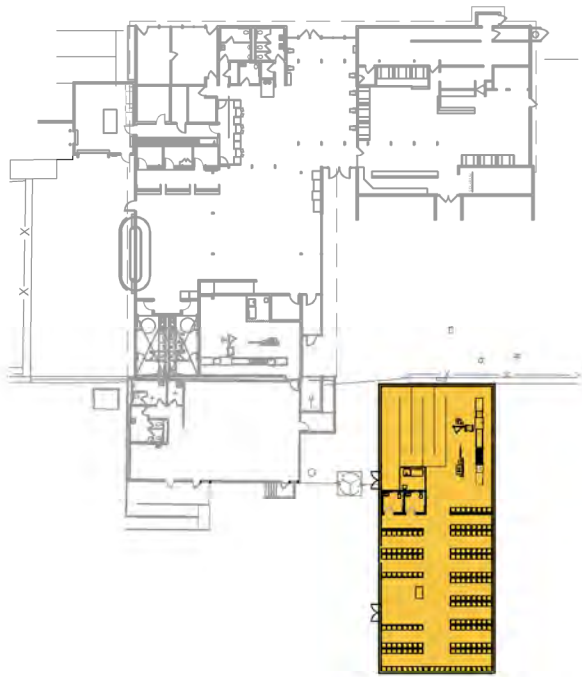
TSA support spaces. The linear airside circulation gallery will allow for continued phased expansion, including jet bridges, with level changes accommodated along lengths of the gallery. Holdrooms and concession areas will frame outdoor spaces along the airside circulation gallery. These outdoor spaces will help to activate holdrooms and concession areas alike, strengthening the sense of place and arrival, and enhancing the traveling experience. Building support areas bridge between landside and airside zones, and can similarly expand to suit airport needs. Parking areas will be expanded to meet projected enplanements.

Cost Projections

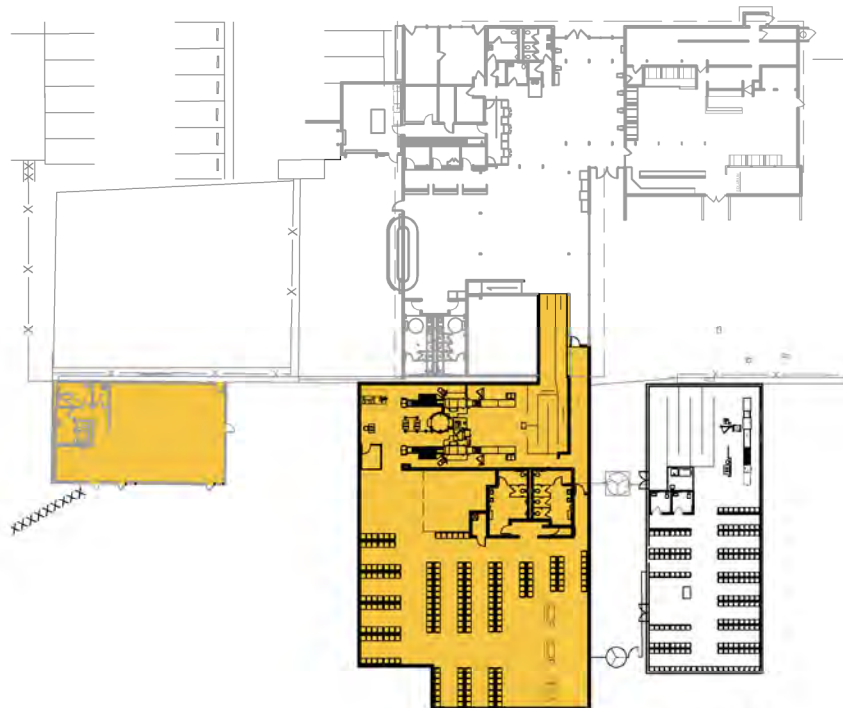
A rough order of magnitude construction budget is from \$5,627,561 to \$7,743,404. Soft costs are anticipated at \$1,800,819 to \$2,477,889. The opinion of probable costs for the near term expansion is from \$7,430,000 to \$10,230,000 in 2015. **Appendix O** outlines the zones of anticipated new construction & renovation.

Appendix A

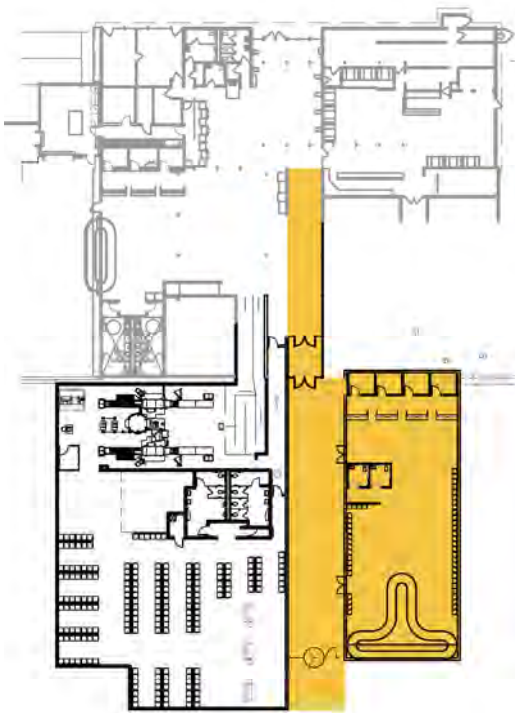
New Holdroom – Phasing Diagram



PHASE 1



PHASE 2



PHASE 3



PHASE 4



PHASE 5

Appendix B

STS Potential Aircraft-on-Ground Scenarios

Appendix B: Potential Schedule Growth – Aircraft-on-Ground

This chart builds on the Airport's current flights, adding future flights under agreement with Alaska Airlines at times of the day where little or no activity presently occurs. This is an attempt to spread out the carrier's schedule throughout the day, allowing sufficient time between flights to and from the same destination. Pacific island resort service may replace or potentially supplement mainland service in the schedule.

Comments provided in the right hand column represent the Airport's understanding of who may provide service to these destinations and when. As with all new service, consideration should be given to market forces that affect airline economics, which may delay future plans. Given Alaska Airlines' intention to now expand service to 13 flights, an additional five flights for other carriers within a ten year period should be achievable. American Airlines typically inaugurates service with two daily flights, so their entry into the STS market would accomplish forty percent (40%) of this number.

The schedule provides a basis for design of the facility in terms of achievable air service goals, expressed by the Airport, translated into daily populations or demand on the facility. Peak period population numbers guide the design team in developing space to accommodate passengers and employees.

Total seats in the STS Potential Aircraft-on-Ground-Scenarios yield 1,207 seats daily, which translates into about 440,555 annual seats (assuming no cancellations and scheduled year-round service). Applying a master plan load factor of 0.62% against this figure, which takes into consideration peak travel and off-peak seasonal adjustments over an operating year, yields 275,000 annual enplanements. The 2012 master plan forecast shows approximately 262,375 annual enplanements (Table 2.8: Moderate Growth) for the year 2025, for a total of about 11 daily departures, placing the potential schedule roughly within range of the master plan. However, if the potential 2025 schedule gains were to be extended out over time, they would greatly exceed the master plan forecast (as shown in Figure A1). This would represent an aggressive level of growth.

STS POTENTIAL AIRCRAFT-ON-GROUND SCENARIOS
AS/STS SPREAD SCHEDULE w/ SKYWEST & AMERICAN ADDS
MID-TERM TEN (10) YEARS

REVISED WORK-UP

| Origin | Flight | Airline | Arrival | | Term Gate | Equip | Seats | Departure | | Flight | Destination | Alaska AS | Current/New | Comments |
|------------------------------------|-------------------------|-----------------|----------|----------|-----------|-------|-------|-----------|----------|-------------------------|------------------------------------|-----------|-------------------|---|
| STS Santa Rosa | AS 2467 | Alaska Airlines | RON | RON | HG | DH4 | 76 | 6:30 AM | 6:27 AM | AS 2467 | LAX Los Angeles | 1 | Current | |
| STS Santa Rosa | AS 2000 | Alaska Airlines | RON | RON | HG | DH4 | 76 | 7:00 AM | 7:00 AM | AS 2465 | SAN San Diego | | Within 2 Years | Early in the period based on demand (strong) and aircraft availability(JS). |
| SLC Salt Lake City | 00 0000 | SkyWest/DL | 8:00 AM | 8:00 AM | HG | CR7 | 65 | 8:30 AM | 8:30 AM | 00 0000 | SLC Salt Lake City | | Within 3-5 Years | DL will add flight with SkyWest as operator. |
| SEA Seattle | AS 2000 | Alaska Airlines | 9:00 AM | 9:00 AM | HG | DH4 | 76 | 9:40 AM | 9:40 AM | AS 0000 | LAX Los Angeles | | Within 7-10 Years | Fourth LAX daily departure for AS. |
| PHX Phoenix | AA 0000 | American | 9:30 AM | 9:30 AM | HG | 738 | 150 | 10:15 AM | 10:15 AM | AA 0000 | PHX Phoenix | | Within 5-7 Years | AA CR9 service to PHX likely; narrow-body 737-800 service to PHX shown for facility planning purposes. |
| LAX Los Angeles | AS 2474 | Alaska Airlines | 10:09 AM | 10:16 AM | HG | DH4 | 76 | 10:40 AM | 10:48 AM | AS 2474 | SEA Seattle | 2 | Current | Second Seattle flight tested in 2014 didn't do as well as hoped; expect better performance in summer season (JS). |
| PDX Portland | AS 2465 | Alaska Airlines | 11:14 AM | 11:15 AM | HG | DH4 | 76 | 11:45 AM | 11:46 AM | AS 2465 | LAX Los Angeles | 3 | Current | |
| SAN San Diego | AS 2468 | Alaska Airlines | 12:00 PM | 11:58 AM | HG | DH4 | 76 | 12:30 PM | 12:32 PM | AS 2468 | PDX Portland | 4 | Current | Current service is sufficient and capacity is well-suited to demand. Doesn't see additional flight now(JS). |
| PHX Phoenix | 00 0000 | SkyWest/AA | 2:30 PM | 2:30 PM | HG | E75 | 80 | 3:00 PM | 3:00 PM | 00 0000 | Phoenix | | Within 5-7 Years | AA preference is to serve two markets out of any city but showing PHX-STS-PHX. LAX would be a fifth flight. |
| SEA Seattle | AS 2493 | Alaska Airlines | 2:53 PM | 2:50 PM | DH4 | DH4 | 76 | 3:25 PM | 3:22 PM | AS 2492 | SEA Seattle | 5 | Current | |
| LAX Los Angeles | AS 2476 | Alaska Airlines | 4:02 PM | 4:03 PM | HG | DH4 | 76 | 4:35 PM | 4:34 PM | AS 2469 | SAN San Diego | 6 | Current | Current service demand is strong. AS will consider future flight but aircraft availability is an issue (see above). |
| SLC Salt Lake City | 00 0000 | SkyWest/DL | 5:30 PM | 5:30 PM | HG | CR9 | 76 | 6:00 PM | 6:00 PM | 00 0000 | SLC Salt Lake City | | Within 5-7 Years | DL will add flight with SkyWest as operator. |
| SEA Seattle | AS 2475 | Alaska Airlines | 6:02 PM | 5:48 PM | HG | DH4 | 76 | 6:35 PM | 6:30 PM | AS 2475 | LAX Los Angeles | 7 | Current | |
| PDX Portland | AS 2000 | Alaska Airlines | 7:30 PM | 7:30 PM | HG | DH4 | 76 | 8:00 PM | 8:00 PM | AS 0000 | SEA Seattle | | Within 3-5 Years | Within AS plan to expand PDX & SEA hubs. |
| SAN San Diego | AS 0000 | Alaska Airlines | 7:30 PM | 8:00 PM | HG | DH4 | 76 | 8:30 PM | 8:30 PM | AS 0000 | PDX Portland | | Within 2-3 Years | Within AS plan to expand PDX & SEA hubs. |
| SEA Seattle | AS 2000 | Alaska Airlines | 9:30 PM | 9:30 PM | HG | DH4 | 76 | RON | RON | AS 0000 | STS Santa Rosa | | Within 2 Years | Inbound flight from Seattle to serve as San Diego AM flight. |
| LAX Los Angeles | AS 2472 | Alaska Airlines | 10:19 PM | 10:19 PM | HG | DH4 | 76 | RON | RON | AS 2472 | STS Santa Rosa | | Current | Inbound flight from LAX serves as outbound LAX AM flight. |

All times are local.

Total Daily AC Seats: 1,207

Current 2015 Departures 7
Total Additional Departures 8
Total Daily Departures 15

| Total Daily Seats | Total Annual Seats | Total Annual Enplanments | Average Annual Load Factor |
|-------------------|--------------------|--------------------------|----------------------------|
| 1,207 | 440,555 | 275,182 | 0.624625 |

Scenario 1



| Aircraft | Seats | 90% DLF | 85% DLF |
|----------|-------|---------|--------------|
| Q400 | 76 | 68.4 | 64.6 |
| Q400 | 76 | 68.4 | 64.6 |
| A320 | 150 | 135 | 127.5 |
| | 302 | 271.8 | 256.7 |

Scenario 2



| Aircraft | Seats | 90% DLF | 85% DLF |
|----------|-------|---------|---------------|
| Q400 | 76 | 68.4 | 64.6 |
| Q400 | 76 | 68.4 | 64.6 |
| 737-900 | 173 | 155.7 | 147.05 |
| | 325 | 292.5 | 276.25 |

Scenario 3



| Aircraft | Seats | 90% DLF | 85% DLF |
|----------|-------|---------|--------------|
| Q400 | 76 | 68.4 | 64.6 |
| Q400 | 76 | 68.4 | 64.6 |
| Q400 | 76 | 68.4 | 64.6 |
| Q400 | 76 | 68.4 | 64.6 |
| | 304 | 273.6 | 258.4 |

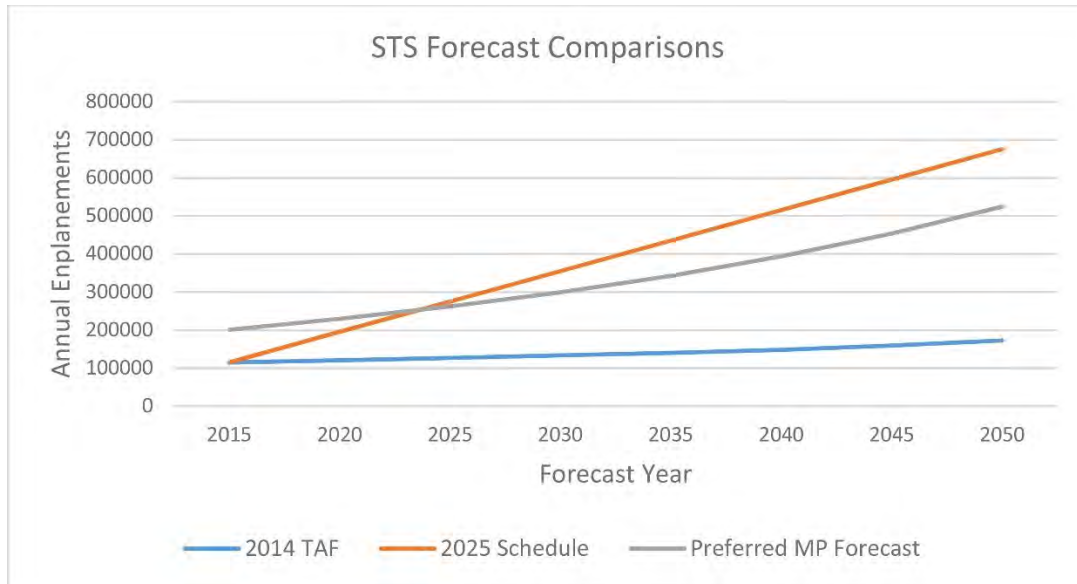


Figure A1: Potential Flight Schedule, 2014 TAF, Preferred MP Extended 2050 Forecasts Comparison

The above is based on extended schedules, with the 2014 FAA terminal area forecast extended to 2050 given an average of 1.69% annual growth.

| Table 2-8 Proposed Master Plan Mainline and Regional Airline Forecast Scheduled Mainline Dominant (Moderate Growth Scenario) | | | | | Proposed Extended Mainline & Regional Forecast - Scheduled Mainline Dominant (Moderate Growth Scenario) | | | | | | | |
|--|--|----------|----------|----------|---|----------|----------|----------|-----------|------|------|------|
| | | | | | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 | 2050 |
| MAINLINE AIRLINES | Average Daily Departures | 4.6 | 5.38 | 6.17 | 7.22 | 8.44 | 9.88 | 11.55 | 13.51 | | | |
| | Average Annual Growth | 0 | 0.1696 | 0.1468 | 0.1702 | 0.1696 | 0.1696 | 0.1696 | 0.1696 | | | |
| | Annual Mainline Departures | 1,679 | 1,962.61 | 2,252.05 | 2635.3 | 3,082.16 | 3,604.78 | 4,216.03 | 4,930.92 | | | |
| | Annual Mainline Operations | 3,358.00 | 3,925.21 | 4,504.10 | 5,270.60 | 6,164.31 | 7,209.56 | 8,432.05 | 9,861.84 | | | |
| | Boarding Load Factor ¹ | 76.36 | 76.86 | 77.27 | 77.57 | 77.80 | 77.96 | 78.04 | 78.08 | | | |
| | Enplaned Mainline Passengers Per Day | 351 | 413 | 477 | 560 | 657 | 770 | 901 | 1,055 | | | |
| | Annual Enplaned Mainline Passengers ³ | 128,202 | 150,848 | 174,005 | 204,415 | 239,800 | 281,023 | 329,003 | 384,983 | | | |
| | Total Daily Mainline Passengers | 702 | 827 | 953 | 1,120 | 1,314 | 1,540 | 1,803 | 2,109 | | | |
| Total Annual Mainline Passengers ³ | 256,403 | 301,696 | 348,009 | 408,830 | 479,600 | 562,045 | 658,006 | 769,966 | | | | |
| REGIONAL AIRLINES | Average Daily Departures | 3.80 | 4.00 | 4.40 | 4.65 | 4.93 | 5.27 | 5.70 | 6.21 | | | |
| | Average Annual Growth | 0 | 0.0500 | 0.0909 | 0.0538 | 0.0600 | 0.0700 | 0.0800 | 0.0900 | | | |
| | Annual Regional Departures | 1,387.00 | 1,460.00 | 1,606.00 | 1,697.25 | 1,799.09 | 1,925.02 | 2,079.02 | 2,266.13 | | | |
| | Annual Regional Operations | 2,774.00 | 2,920.00 | 3,212.00 | 3,394.50 | 3,598.17 | 3,850.04 | 4,158.05 | 4,532.27 | | | |
| | Boarding Load Factor ² | 52.44 | 53.96 | 55.02 | 56.16 | 57.36 | 58.65 | 60.05 | 61.55 | | | |
| | Enplaned Regional Passengers Per Day | 199 | 216 | 242 | 261 | 283 | 309 | 342 | 382 | | | |
| | Annual Enplaned Regional Passengers | 72,734 | 78,782 | 88,369 | 95,321 | 103,198 | 112,910 | 124,838 | 139,478 | | | |
| | Total Daily Regional Passengers | 399 | 432 | 484 | 522 | 565 | 619 | 684 | 764 | | | |
| Total Annual Regional Passengers | 145,469 | 157,563 | 176,737 | 190,649 | 206,395 | 225,820 | 249,676 | 278,955 | | | | |
| TOTALS | Average Daily Departures | 8.40 | 9.38 | 10.57 | 11.87 | 13.37 | 15.15 | 17.25 | 19.72 | | | |
| | Annual Departures | 3,066 | 3,423.00 | 3,858 | 4,333 | 4,881 | 5,530 | 6,295 | 7,197 | | | |
| | Annual Operations | 6,132 | 6,846.00 | 7,716 | 8,665 | 9,762 | 11,060 | 12,590 | 14,394 | | | |
| | Daily Enplaned Passengers | 551 | 629.00 | 719 | 821 | 940 | 1,079 | 1,243 | 1,437 | | | |
| | Annual Enplaned Passengers | 200,936 | 229,629 | 262,373 | 299,739 | 342,998 | 393,932 | 453,841 | 524,461 | | | |
| | Total Annual Passengers | 401,872 | 459,259 | 524,746 | 599,479 | 685,995 | 787,865 | 907,682 | 1,048,921 | | | |

Source: 2012 Master Plan Update, Mead & Hunt, Inc.

1) Based on 101 avg. seats X FAA growth rates

2) Based on 76 average seats X FAA LF growth rates

3) Based on 365 days per year

Figure A2: Proposed Extended Mainline & Regional Forecast – Moderate Growth Scenario

The master plan forecast was extended to 2050 as shown in the charts above. Since the master plan figures start off higher at 2015 than actual figures, adjusting future growth down allows for a more realistic facility growth projection. This is shown in Figure A3.

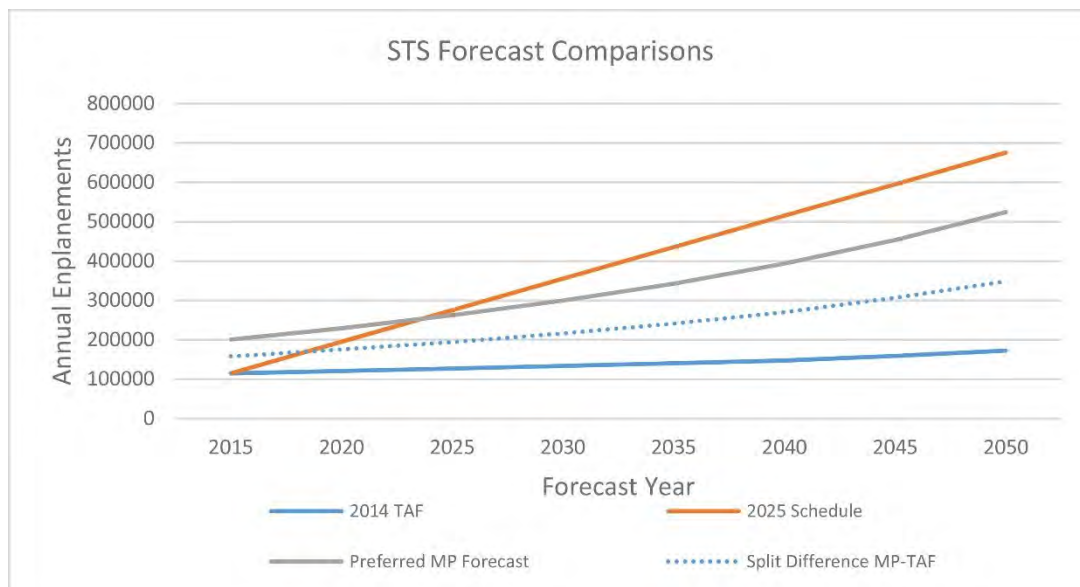


Figure A3: Split Difference – Extended FAA TAF and Master Plan Forecasts

The dashed line represents the mid-point between the two forecasts, FAA TAF and master plan. It also provides a separate growth option since the master plan exceeds actual enplanements by approximately 85,000. Assuming the Airport attains a higher sustained growth between 2015 and 2020, as represented by the 2025 schedule, the Airport will make up the difference quickly. Enplanement growth can continue along the ten-year trajectory shown or it could level off to a more modest growth after this initial period. What appears to be a reasonable assumption is that the low growth forecast by the TAF will be too low given recent additions and near-term projections for service additions. Taking the midpoint of the two forecasts to serve as modest growth, then splitting the difference between this line and TAF for a low-growth scenario and doing the same for high growth, yields approximately 200,000 for the near term, 250,000 enplanements for low growth, 350,000 enplanements for moderate growth (the dotted line on the chart), and 450,000 annual enplanements for high growth. These figures are used as the basis for long-term facility projections to the year 2050.

Appendix C

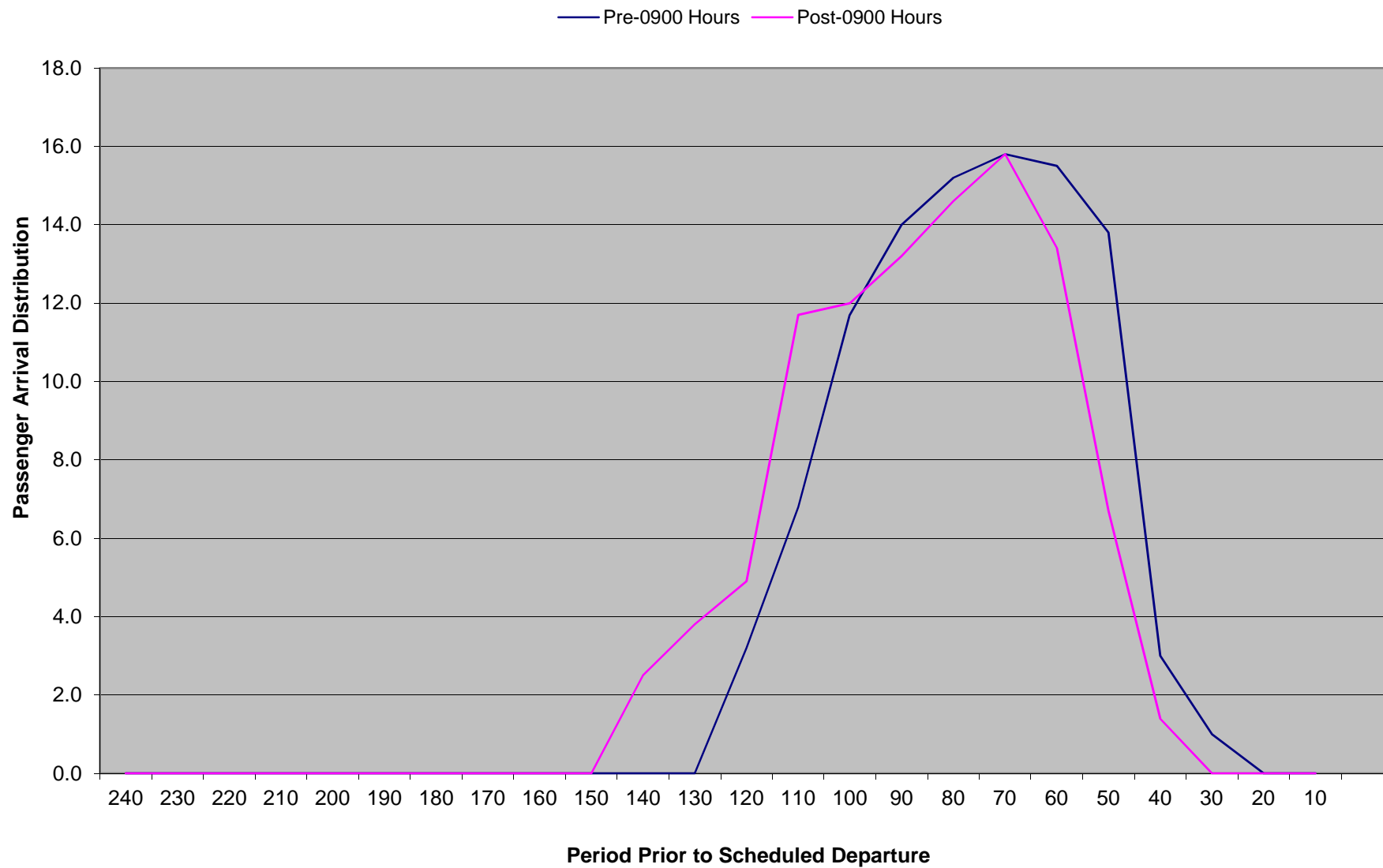
Passenger Arrivals Curves

Appendix C: Passenger Arrivals Curves

The chart shows a compressed arrivals curve for both measures – passengers arriving before 9:00 am and those arriving after 9:00 am, the traditional measure for earliness distributions. The near overlap of the two measures indicates that there is little difference between the two, meaning that there will be a similar degree of surge prior to an early morning flight as a late afternoon flight. The latter is typically a longer lead time prior to departure, reducing demand over time, which reduces passenger queues and wait times.

The values contained in the chart were input into the worksheet model to generate passenger volumes by time of day, identifying demand to be placed on the terminal components. The results provide a closer look at the effects of multiple departures in a period by showing the overlap of passengers arriving at the terminal for different flights through the period. Where rules of thumb may dictate a higher demand, the worksheets provide more insight into what is occurring during the period, allowing the design team to respond accordingly. Where other analyses may show a requirement for an additional passenger security screening lane, the worksheets would provide a more precise demand, possibly allowing the Airport to postpone building an addition until later.

Passenger Arrivals Curves/Earliness Distributions*



Appendix D

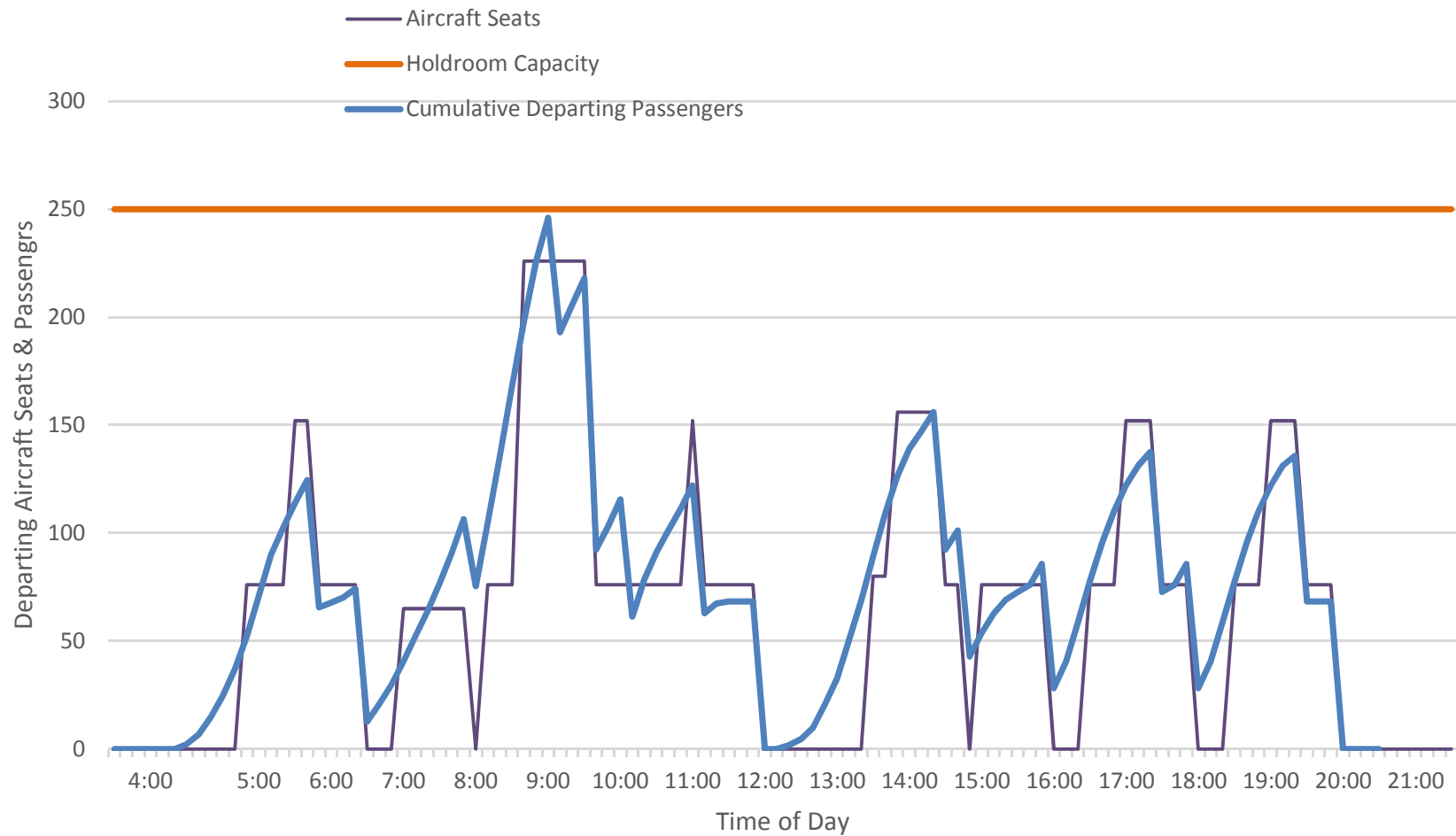
STS 2025 Schedule Departing Passengers & Holdroom Capacity

Appendix D: STS 2025 Schedule Departing Passengers & Holdroom Capacity

The graph shows a peak hour occurring at between 9:00 am to 9:30am, when the passenger population approaches 250 in the secure holdroom. This occurs in the potential 2025 schedule due to the B-737-800 aircraft proposed to depart between two DHC-8-Q400 aircraft. Passengers for each flight are included in the population count of the holdroom until they board their flight. A small shift in scheduled departure doesn't affect the count as much as a shift in which flight overlaps into the next departure. Scenarios including three departing Q400 flights at a full load or a larger aircraft with two Q400 flights within the same hour can be accommodated within the space.

As illustrated in the graph, later day trends, in which only peaks of 150 passengers occupy the holdroom, will allow sufficient capacity to expand the flight schedule throughout the greater part of the operating day.

STS 2025 Schedule Departing Passengers & Holdroom Capacity



Appendix E

Terminal Space

TERMINAL SPACE (s.f.)
(Fiscal Years Ending June 30)

| | | Existing | Recom. per Adv. Circ for 272 peak hour |
|--------------------------------------|---------|----------|---|
| | | 2015 | 2025 |
| <u>Preferential Use Space:</u> | | | |
| Airline Ticket Office - Alaska | | 278 | 1,042 |
| Total Preferential Use Space | [A] | 278 | 1,042 |
| <u>Airline Joint Use Space:</u> | | | |
| Holdroom | | 1,134 | |
| Baggage Claim | | 534 | 3,465 |
| Baggage Screening Space | | 607 | 3,711 |
| Ticket Counters | | 183 | 879 |
| Ticket Counter Queueing | | 239 | 1,448 |
| Airline Kiosk Area | | 274 | 323 |
| Total Airline Joint Use Space | [B] | 2,971 | 15,079 |
| Airline Rented Space | [C=A+B] | 3,249 | 16,121 |
| <u>Other Rentable:</u> | | | |
| Car Rental Queue | | 180 | 320 |
| Car Rental Counter Area | | 247 | 300 |
| Car Rental Offices | | 255 | 400 |
| Food/Beverage/Retail | | 3,545 | 2,746 |
| Vending | | 103 | 240 |
| TSA Offices | | 573 | 800 |
| Total | [D] | 4,903 | 4,806 |
| Total Rentable Space | [E=C+D] | 8,152 | 20,927 |
| <u>Non-Rentable Space:</u> | | | |
| Security Screening Checkpoint | | 977 | 4,185 |
| Airside Public Circulation | | 604 | 3,303 |
| Airside Restrooms | | 283 | 700 |
| Public Waiting Area | | 934 | 2,039 |
| Public Circulation & Ancillary Space | | 2,233 | 7,958 |
| Landside Restrooms | | 969 | 1,050 |
| Airport Offices | | | 300 |
| Police | | 113 | 200 |
| Building Support Space | | 180 | 3,047 |
| Total Non-Rentable Space | [F] | 6,293 | 22,782 |
| Total Terminal Space | [G=E+F] | 14,445 | 43,709 |

Note: Amounts may not add due to rounding.

*An additional 2100 sf of unprogrammed, post-secure space will be available from the relocation of the existing holdroom.

Appendix F

STS Terminal Areas and Conceptual Layout – Long Term Scenarios

STS - Terminal Areas - Long Term Scenarios

Mead & Hunt, Inc
December 15, 2015

| | 2025 | 2050 light | 2050 moderate | 2050 heavy |
|----------------------------|---------|---------------|------------------|---------------|
| Annual Enplaned Passengers | 200,000 | 250,000 | 350,000 | 450,000 |
| Peak Hour - Enplaned | 272 | 340 | 476 | 612 |

Airside

| | | | | |
|-------------------|---|--------------|--------------|--------------|
| SSCP | | | | |
| queue | | 1,046 | 1,308 | 1,831 |
| lanes | 2 | | 3 | 4 |
| checkpoint area | | 2,000 | 3,000 | 4,000 |
| exit lan | | 400 | 600 | 800 |
| recompure | | 739 | 923 | 1,292 |
| Total SSCP | | 4,185 | 5,831 | 7,923 |

| | | | | |
|-----------------------|-----|--------------|---------------|---------------|
| Holdroom | | | | |
| aircraft seats | 320 | 400 | 560 | 720 |
| area | | 4,893 | 6,116 | 8,562 |
| gates | 3 | 4 | 5 | 7 |
| gate podium | | 60 | 80 | 100 |
| wheel chair | | 150 | 188 | 263 |
| play | | 150 | 188 | 263 |
| circulation | | 3,303 | 4,129 | 5,780 |
| Total Holdroom | | 8,556 | 10,700 | 14,967 |

| | | | | |
|------------------------|--|------------|------------|--------------|
| AS Restrooms | | | | |
| fixture per m/fm | | 700 | 875 | 1,224 |
| area | | 4 | 5 | 8 |
| Total Restrooms | | 700 | 875 | 1,224 |

| | | | | |
|-----------------------|--|------------|------------|------------|
| AS Concessions | | | | |
| Food/Retail | | 435 | 544 | 761 |
| Vending | | 120 | 150 | 210 |
| Total AS Conc. | | 555 | 694 | 971 |

| | | | | |
|----------------------|---------------|---------------|---------------|---------------|
| Total Airside | 13,995 | 18,099 | 25,086 | 32,094 |
|----------------------|---------------|---------------|---------------|---------------|

| | 2025 | 2050 light | 2050 moderate | 2050 heavy |
|---------------------------------|---------------|---------------|------------------|----------------|
| Landside | | | | |
| Public Areas | | | | |
| Public Circulation | 7,707 | 9,633 | 13,487 | 17,340 |
| Art | 100 | 100 | 100 | 100 |
| Vending | 120 | 150 | 210 | 270 |
| Hotel/Courtesy Boards | 100 | 100 | 100 | 100 |
| Postal | 6 | 7 | 10 | 12 |
| Food/Bev | 1,548 | 1,935 | 2,709 | 3,483 |
| Waiting | 2,039 | 2,548 | 3,568 | 4,587 |
| Restrooms | 1,050 | 1,312 | 1,837 | 2,362 |
| Fixtures per m ² /m | 7 | 8 | 11 | 15 |
| Subtotal Public Area | 12,669 | 15,786 | 22,020 | 28,254 |
| Airline Areas | | | | |
| Ticket Queue | 1,448 | 1,809 | 2,533 | 3,257 |
| Kiosk Area | 323 | 323 | 323 | 323 |
| Ticket Counter Area | 579 | 724 | 1,013 | 1,303 |
| Baggage Conveyance | 300 | 400 | 500 | 600 |
| Airline Ticket Office | 1,042 | 1,303 | 1,824 | 2,345 |
| Subtotal Airline Area | 3,691 | 4,558 | 6,193 | 7,827 |
| Rental Car Areas | | | | |
| Rental Car Queue | 320 | 400 | 560 | 720 |
| Rental Car Counter Area | 300 | 375 | 525 | 675 |
| Rental Car Offices | 400 | 500 | 700 | 900 |
| Subtotal Rental Car Area | 1,020 | 1,275 | 1,785 | 2,295 |
| Baggage Area | | | | |
| Bag Claim Devices | 2 | 3 | 4 | 5 |
| Bag Claim Frontage | 201 | 252 | 353 | 453 |
| Bag Claim Area | 3,021 | 3,777 | 5,288 | 6,798 |
| Bag Service Office | 443 | 554 | 776 | 997 |
| Subtotal Baggage Area | 3,465 | 4,331 | 6,063 | 7,795 |
| Baggage Screening | | | | |
| TSA Screening Area | 3,711 | 4,638 | 9,740 | 12,523 |
| Subtotal Baggage Area | 3,711 | 4,638 | 9,740 | 12,523 |
| Leased and Misc Space | | | | |
| Airport Offices | 300 | 375 | 525 | 675 |
| TSA Admin Offices | 800 | 1,000 | 1,400 | 1,800 |
| Conference Rooms | 0 | 0 | 0 | 0 |
| Police | 200 | 250 | 350 | 450 |
| Concessions (Back of House) | 763 | 953 | 1,334 | 1,716 |
| Employee Facilities | 50 | 63 | 88 | 113 |
| Subtotal Offices | 2,113 | 2,641 | 3,697 | 4,753 |
| Support Spaces | | | | |
| Building Services | 1,631 | 2,039 | 2,854 | 3,670 |
| Receiving Area | 600 | 600 | 900 | 900 |
| Janitor Spaces | 204 | 255 | 357 | 459 |
| Non-Public Circulation | 612 | 765 | 1,070 | 1,376 |
| Subtotal Support Spaces | 3,047 | 3,658 | 5,181 | 6,405 |
| Subtotal Landside | 29,714 | 36,887 | 54,680 | 69,853 |
| Terminal Area | 43,709 | 54,986 | 79,766 | 101,947 |

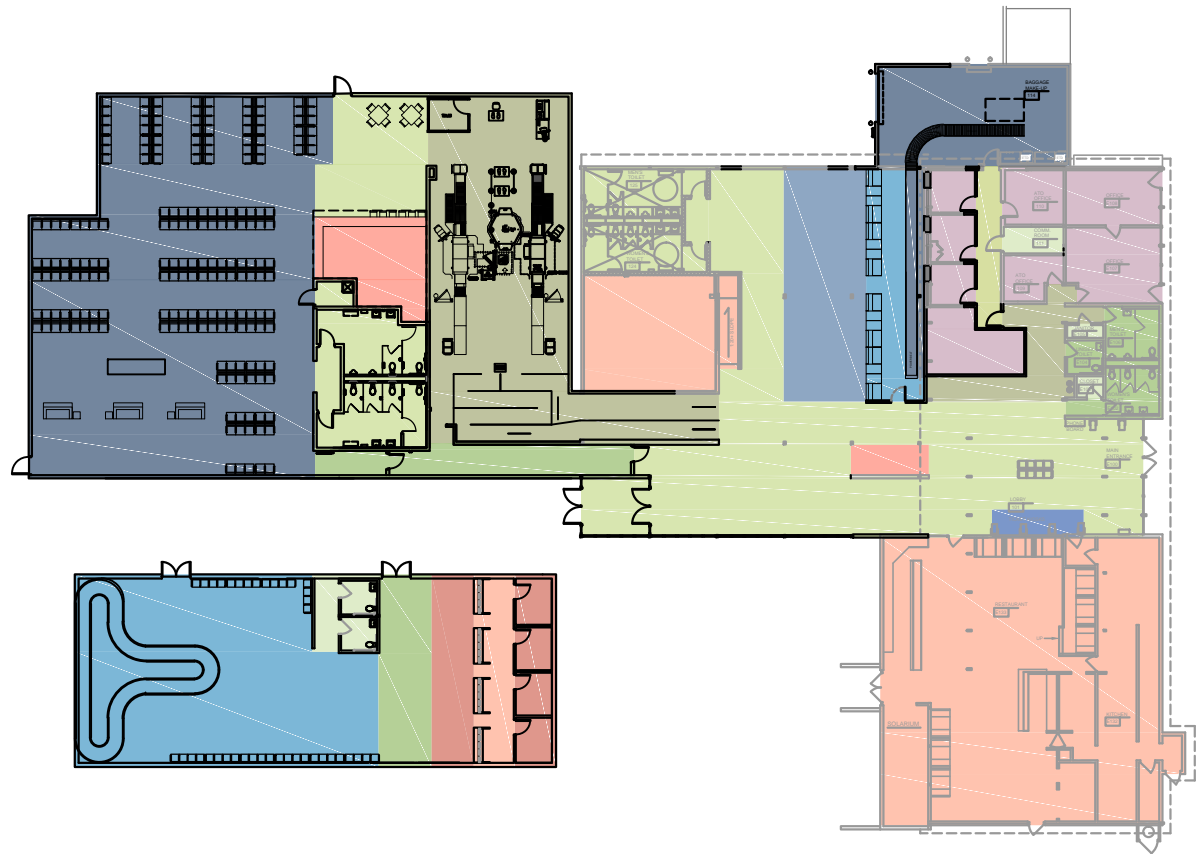
Appendix G

New Holdroom – Site Plan

Appendix H

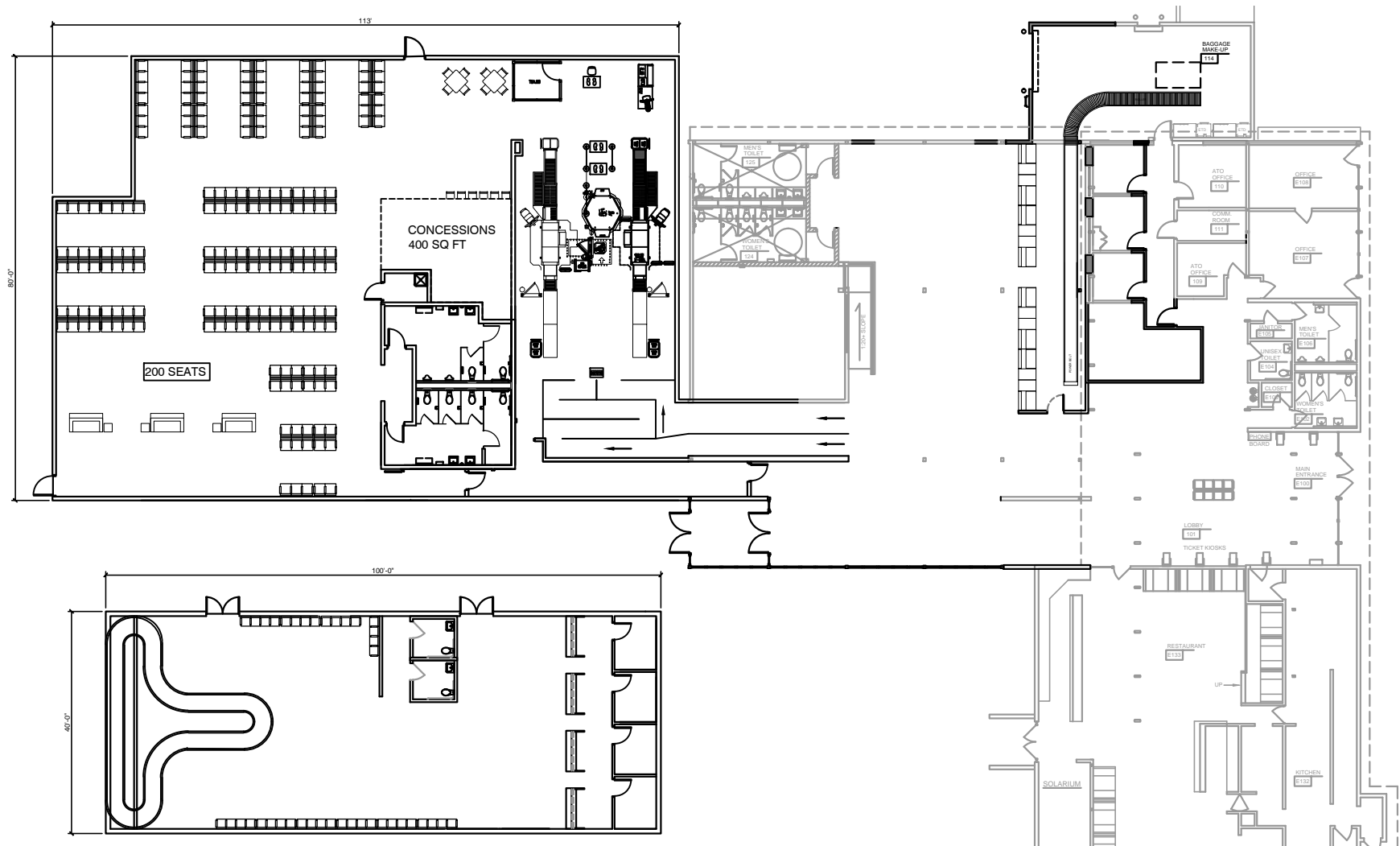
Area Takeoff

| | | |
|-------------------------|--------------------------|----------|
| Preferential Space | ATO | 1404sf |
| | Total | 1404sf |
| Airline Joint Use Space | Holdroom | 3916sf |
| | Baggage Claim | 2302sf |
| | Baggage Screening | 1051sf |
| | Ticket Counters | 414sf |
| | Ticket Queuing | 839sf |
| | Airline Kiosk Area | 112sf |
| | Total | 8634sf |
| Other Rentable | Car Rental Queue | 342sf |
| | Car Rental Counters | 342sf |
| | Car Rental Offices | 342sf |
| | Food/Bev/Retail | 3992sf |
| | Vending | 103sf |
| | TSA Offices | 791sf |
| | Total | 5912sf |
| Non-Rentable Space | Security Screening | 2500sf |
| | Airside Public Circ. | 1968sf |
| | Airport Circ. | 184sf |
| | Airside Restrooms | 892sf |
| | Landside Restrooms | 969sf |
| | Bldg Support Space (BSS) | 180sf |
| | Landside Public Circ. | 3690 sf |
| | Total | 10,383sf |
| | Grand Total | 26,333sf |



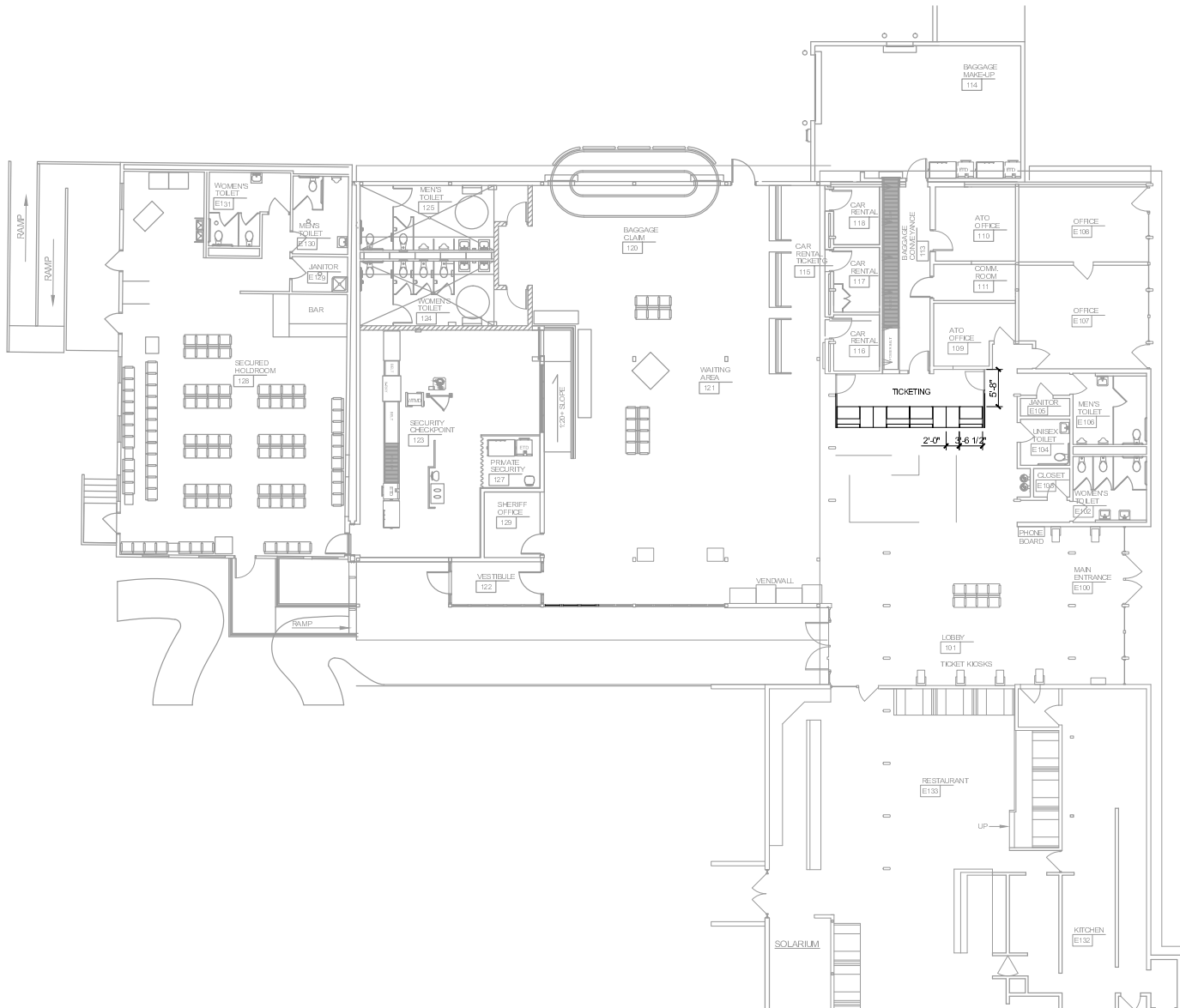
Appendix I

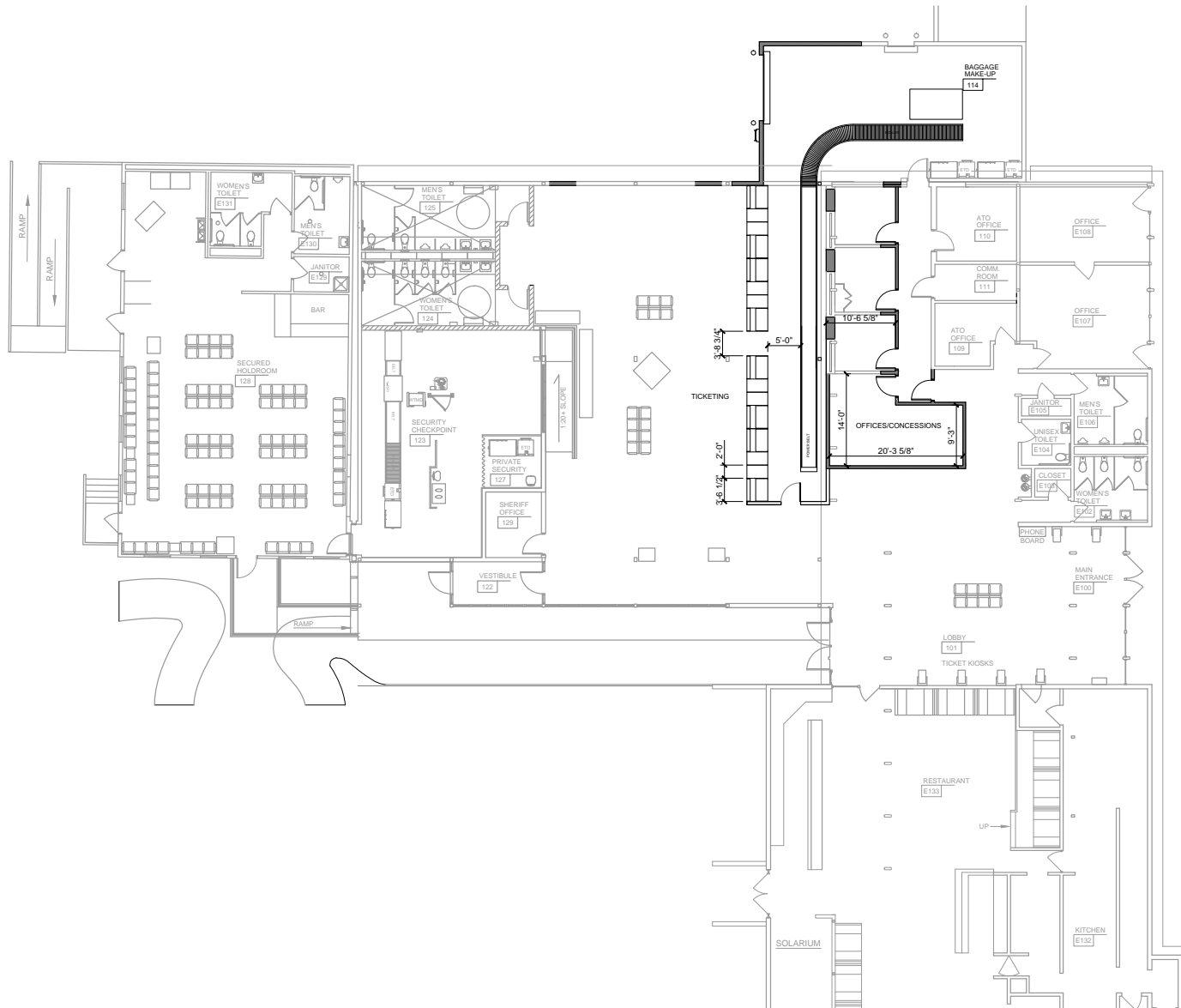
New Holdroom Presentation



Appendix J

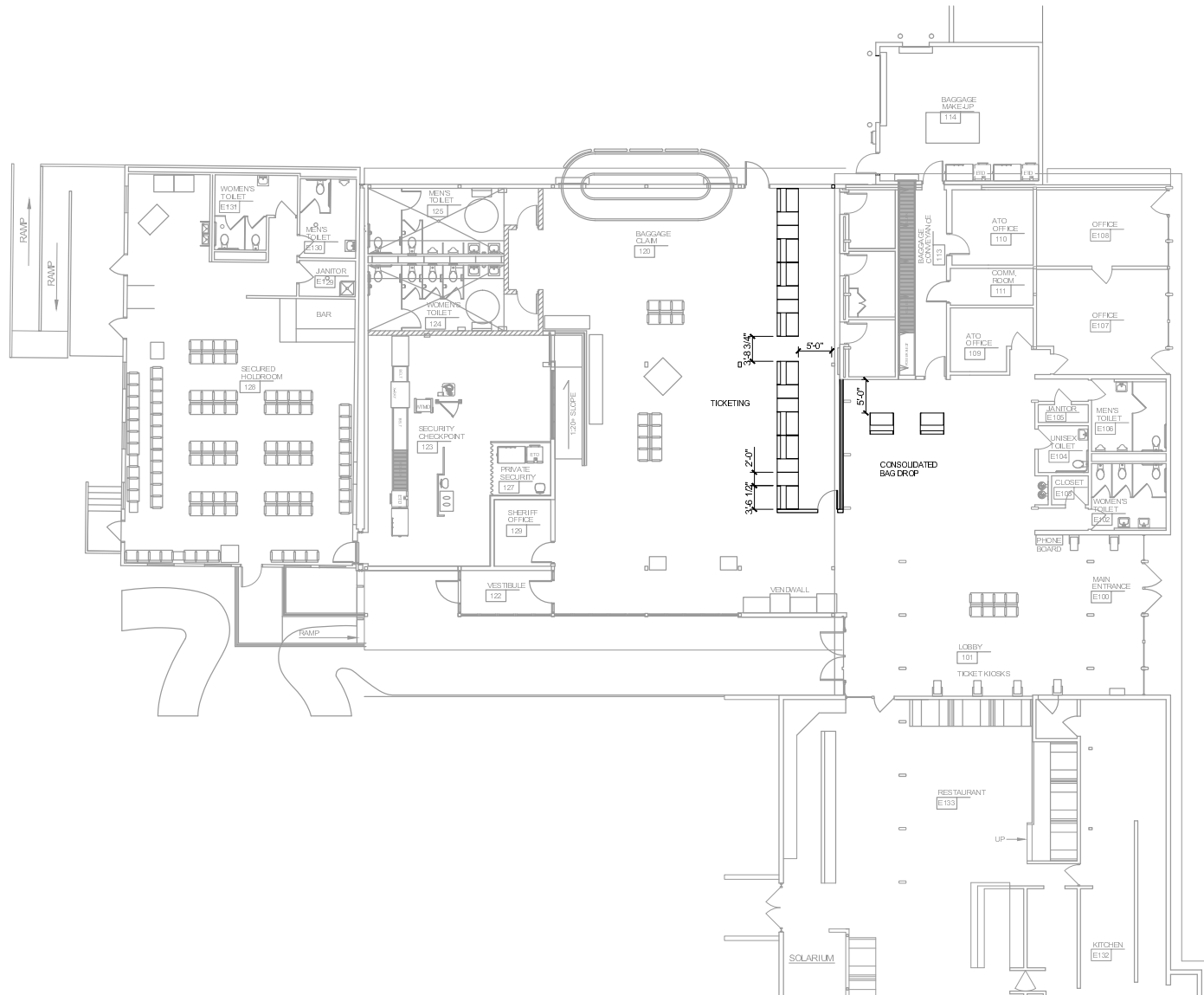
Ticketing Layout Options







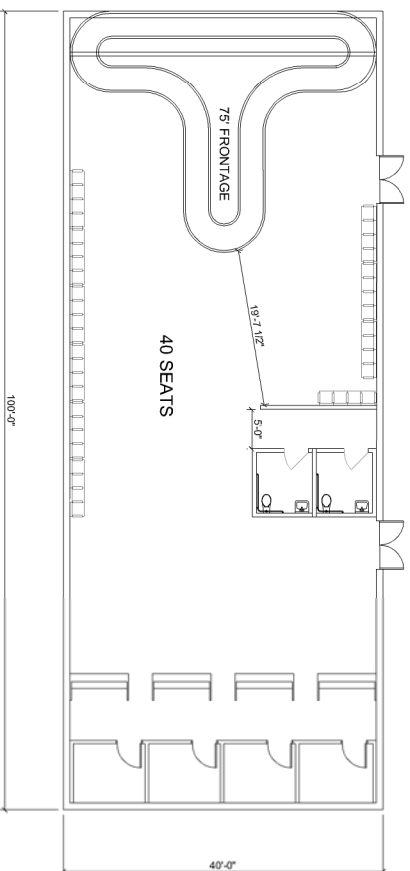
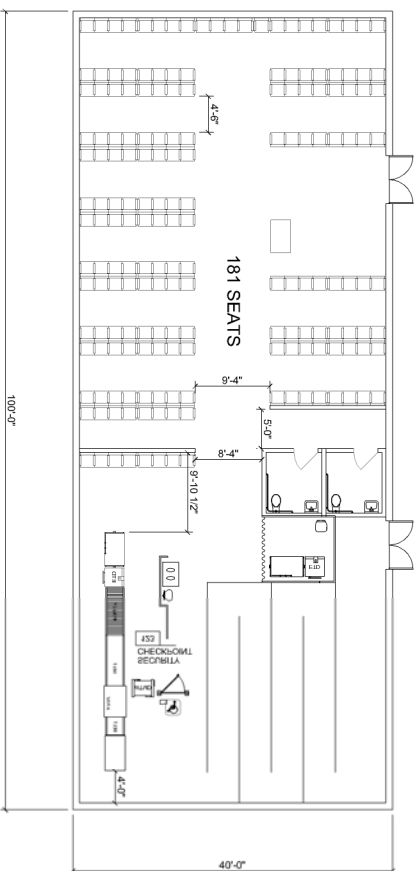






Appendix K

Sprung Structure Options



Appendix L

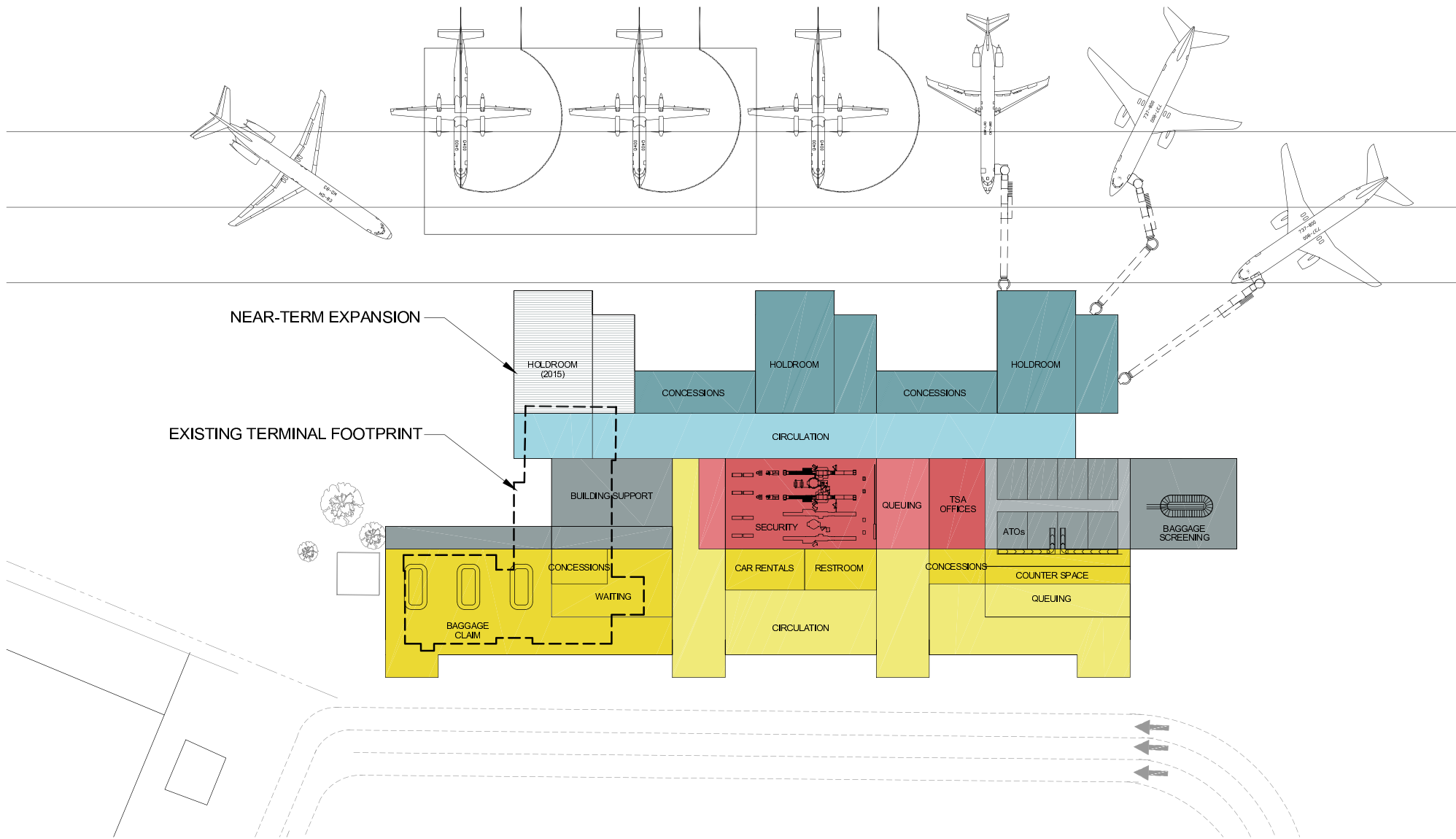
Circulation Gallery





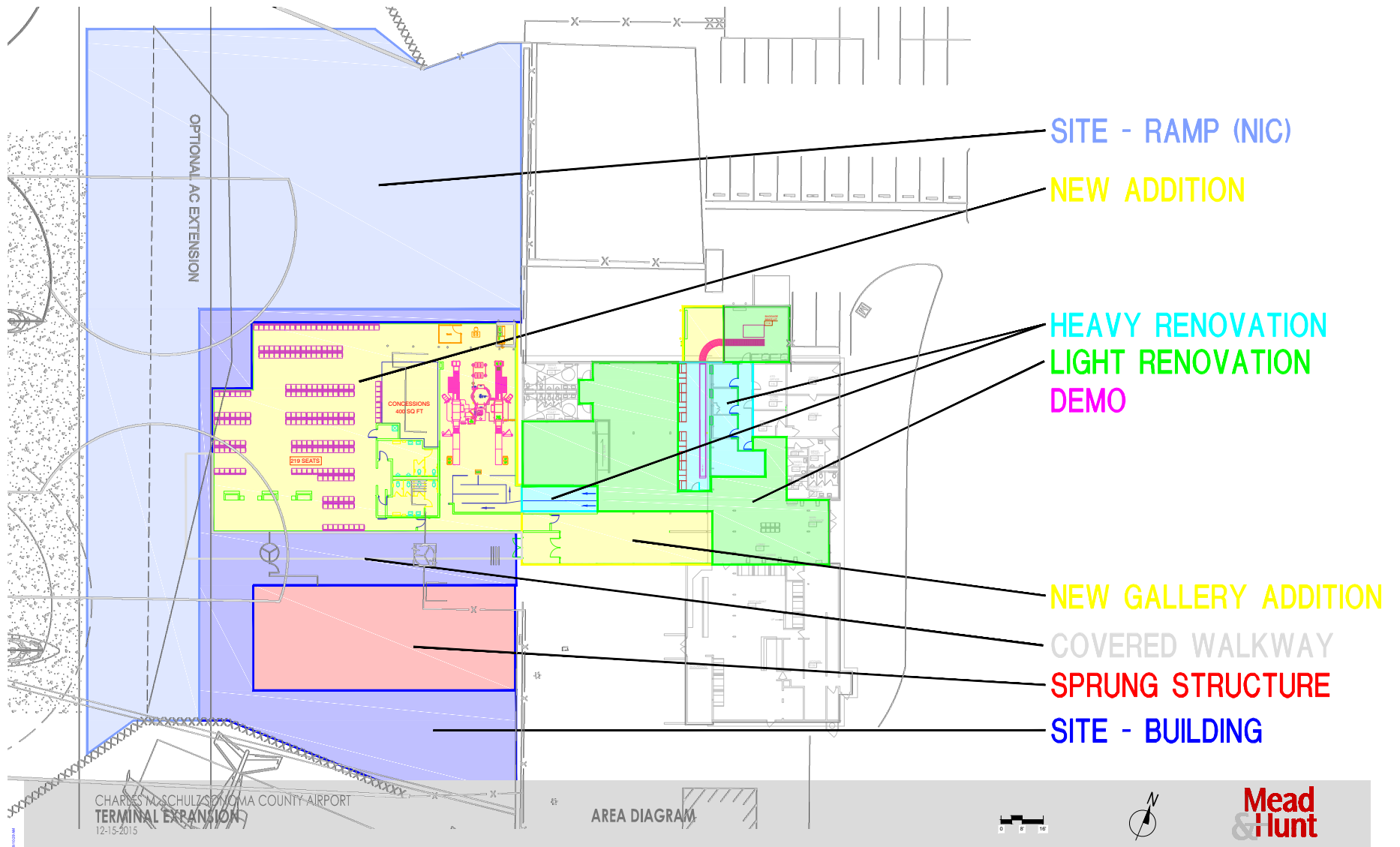
Appendix M

Conceptual Layout – Future Expansion



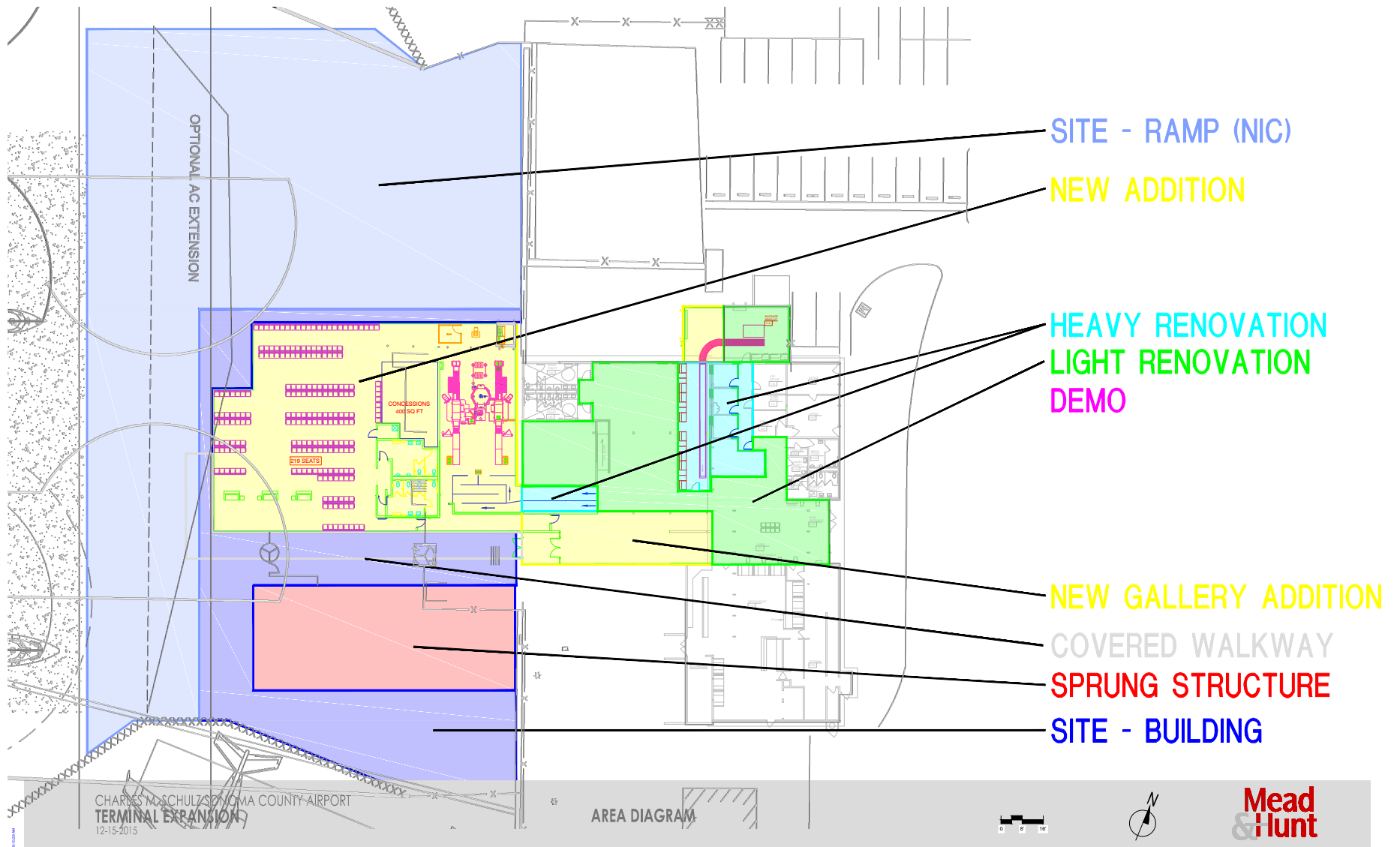
Appendix N

Area Diagram



Appendix O

Construction Zones



SUMMARY TABLE**RESULTS****CHARLES M. SCHULZ - SONOMA COUNTY AIRPORT**

(Fiscal Years Ending June 30)

| | Forecast | | | | |
|---|-------------|-------------|-------------|-------------|-------------|
| | 2016 | 2017 | 2018 | 2019 | 2020 |
| Landing Fee (per 1,000-lbs) | \$1.21 | \$1.25 | \$1.28 | \$1.32 | \$1.36 |
| <u>Airline Terminal Rates & Charges - Daily Service:</u> | | | | | |
| Airline Preferential Space Rental Rate (per s.f.) | \$30.17 | \$31.10 | \$32.03 | \$32.98 | \$33.97 |
| Unassigned Ticket Counter & Queue Fee (per EP - \$0.28 minimum) | \$0.28 | \$0.29 | \$0.29 | \$0.29 | \$0.29 |
| Airline Joint Use Space Charge (per EP - \$1.60 minimum) ¹ | \$1.60 | \$1.60 | \$1.60 | \$1.60 | \$1.60 |
| <u>Airline Terminal Rates & Charges - Non-Daily Service (130%):</u> | | | | | |
| Airline Preferential Space Rental Rate (per s.f.) | \$39.22 | \$40.42 | \$41.63 | \$42.88 | \$44.16 |
| Unassigned Ticket Counter & Queue Fee (per EP) | \$0.36 | \$0.38 | \$0.38 | \$0.38 | \$0.38 |
| Per Turn Fee (assumes 90% Load Factor) ² | | | | | |
| MD-80 | \$523.00 | \$529.00 | \$535.00 | \$540.00 | \$545.00 |
| A-319 | \$484.00 | \$491.00 | \$496.00 | \$501.00 | \$507.00 |
| B737-800 | \$523.00 | \$530.00 | \$536.00 | \$541.00 | \$547.00 |
| CRJ | \$167.00 | \$170.00 | \$171.00 | \$173.00 | \$175.00 |
| <u>Cost Per Enplaned Passenger</u> | | | | | |
| Alaska - Current Markets | \$2.92 | \$2.99 | \$3.03 | \$3.06 | \$3.10 |
| Alaska - Hawaii | | \$2.97 | \$3.00 | \$3.03 | \$3.07 |
| American - PHX | \$3.36 | \$3.84 | \$3.89 | \$3.93 | \$3.98 |
| Allegiant - LAS | \$3.56 | \$4.15 | \$4.19 | \$4.23 | \$4.28 |
| Mexican Service | | | | \$4.62 | \$4.68 |
| Delta - SLC | | \$3.86 | \$3.90 | \$3.95 | \$3.99 |
| New Service 6 | | | | | |
| New Service 7 | | | | | |
| Average CPE | \$3.02 | \$3.21 | \$3.24 | \$3.36 | \$3.40 |
| <u>Airline Rate Subsidy:</u> | | | | | |
| Net Airline Rate Subsidy | \$1,229,872 | \$1,558,000 | \$1,732,000 | \$1,913,000 | \$2,111,000 |
| STS Net Surplus/(Deficit) | \$116,676 | \$173,893 | \$318,946 | \$171,671 | \$7,591 |
| Surplus Fund Ending Balance | \$4,045,731 | \$2,983,447 | \$3,062,508 | \$2,498,080 | \$2,221,470 |

¹ Includes use of holdroom, bag claim, bag screening, ticket counters, ticket queueing, airline kiosk areas, and electrical power on apron.² Includes use of holdroom, bag claim, bag screening, ticket counters, ticket queueing, airline kiosk areas, electrical power on apron, and landing fee.

Source: Airport management records

Compiled by Trillion Aviation, January 2016



MEMORANDUM

Date: December 3, 2015

To: Jon Stout, Airport Manager, Charles M. Schulz - Sonoma County Airport
Jonathan Kadlec, Assistant Treasurer-Tax Collector, Sonoma County

From: David Leifer and Mark Li, KNN Public Finance

Re: Sonoma County Airport Projects - Financing Alternatives

Per your request, we have evaluated financing alternatives for the Charles M. Schulz - Sonoma County Airport (the "Airport") terminal and parking lot projects. The following analysis considers the feasibility of financing the projects with: (i) debt supported only by Airport net revenues, and (ii) debt supported, or additionally supported, by the General Fund of Sonoma County ("County").

Overall, our analysis suggests that the Airport net revenues cannot support publicly issued or privately placed long-term debt for approximately \$10.4 million of projects at this time. Because of the credit considerations related to debt supported by only Airport revenues, we think this also limits the feasibility of issuing interim financing, such as bond anticipation notes, supported only by Airport revenues.

However, if the County is comfortable with the Airport credit or public policy otherwise supports financing the projects, then a County issued long-term fixed rate COP (secured with a pledge of the County General Fund) represents the most straightforward and viable financing method, at least until such time as airport enplanements increase and airport supported revenue bonds are feasible. While a County supported interim financing may also be possible, it presents legal considerations, administrative burdens, interest rate risk, and other risks, all of which would need to be considered.

The Projects

The Airport plans to expand the terminal to allow for additional carriers and to expand the parking lot to meet growing enplanements (the "Projects"). The terminal expansion project (the "Terminal Project") is estimated to cost approximately \$8.0 million (ranging from \$7.4 million to \$10.2 million). It is anticipated that construction bids for the project will be during August 2016, construction start will be during November 2016 and the construction will take 18 to 24 months to complete. The parking lot expansion project (the "Parking Project") is estimated to cost approximately \$2.4 million (ranging from \$2.3 million to \$3.8 million). It is anticipated that construction bids for the project will be early 2016, construction start will be during July 2016 and construction will take approximately 4 months.

Airport Net Revenue Financing Capacity

Under Article XVI, Section 18 of the California Constitution (the "debt limit"), county debt must be issued with a 2/3rds voter approval unless it falls within an exception. The County could issue General Airport Revenue Bonds ("GARs") secured solely by airport revenues without voter approval under the special fund doctrine, which is a judicially created exception to the debt limit. GARs are typically secured by the airport enterprise fund net revenues (operating revenues less operating expenses).

Publicly offered GARs are typically issued by large airports with investment grade credit ratings. These ratings are based on significant net revenues, multiple carriers and a high number of enplanements. Speaking with Standard and Poor's Rating Services ("S&P"), they have investment grade ratings on only a few small non-hub airports. The smallest of these airports has around 300,000 enplanements with net revenues exceeding annual

debt service (“coverage”) by around 2.0x. The Airport currently has less than 150,000 enplaned passengers and Alaska Airlines (credit rating of “BBB- by Fitch Ratings) is the only carrier. Accordingly, the Airport might be able to obtain an investment grade rating for a GARB with 2.0x coverage or higher. It is important to note, however, that the S&P analyst we spoke with was not aware of any GARB ratings for an airport with less than around 300,000 enplanements. As an alternative to a public offering, the Airport could consider a privately placed GARB. The “private investor,” typically a commercial bank, would share similar concerns about bonds secured only by Airport revenues.

Regardless of credit concerns, the Airport also has limited capacity to issue the needed amount of new debt. Below we determine the Airport’s capacity to issue new debt assuming a “BBB” rating, 2.0x coverage and 30-year term. The following table calculates the Airport’s net revenues based on the information found in the County Comprehensive Annual Financial Report (“CAFR”) for the Fiscal Year Ended June 30, 2014 (“FY 2013-204 CAFR”) as well as a draft of the FY 2014-2015 CAFR. Also shown in the following table is the Airport’s total annual debt service for the current debt outstanding based on information from the Airport and the County.

| Net Revenues (\$ in Thousands) | Fiscal Year Ending June 30, 2014 | Draft Fiscal Year Ending June 30, 2015 |
|--|--|---|
| Airport Revenues: | | |
| Rents & Concessions | 3,926 | 4,355 |
| Charges for Services | 352 | 211 |
| Total Revenues | 4,278 | 4,566 |
| Operating Expenses | | |
| Services & Supplies | 1,776 | 2,333 |
| Salaries & Employee Benefits | 1,520 | 1,273 |
| Total Operating Expenses | 3,296 | 3,606 |
| Net Revenues | 982 | 961 |
| Debt Service Coverage Estimate | 2.0x | 2.0x |
| Net Revenues Available For Debt Service | 491 | 480 |
| Total Current Debt Service (See Below) | 332 | 332 |
| Net Revenues Available for New Parity Debt | 159 | 149 |
| Net Revenues | 982 | 961 |
| Debt Service Coverage Estimate | 2.0x | 2.0x |
| Net Revenues Available for New Senior Debt | 491 | 480 |

| Current Debt Outstanding (\$ in Thousands) | | June 30, 2016 Amount Outstanding | FY 2015-2016 Annual Debt Service | Expected Final Maturity |
|---|--------------|--|--|-------------------------------|
| Paid from Airport Net Revenues | Issue Amount | | | |
| Hangar Construction L-6 | 1,297 | 267 | 132 | January 2018 |
| Building Acquisition L-7 | 1,690 | 619 | 157 | May 2020 |
| Treasury Note 2015-1 (Interest Only, Grant) | 1,000 | 1,000 | 14 | 2017 |
| Treasury Note 2015-2 (Interest Only, Grant) | 2,000 | 2,000 | 28 | 2019 |
| Total | 5,987 | 3,886 | 332 | |
| Paid from Airport Revenues with FY 2015-2016 Maturity | | | | |
| Hangar Construction L-5 | 1,000 | 110 | 115 | June 2016 |
| Paid from Passenger Facility Charges (PFCs) | | | | |
| Runway Extension L-8 | 5,000 | 4,360 | 423 | May 2029 |
| GAN - Mitigation 2014-1 (County Treasury) | 10,000 | 3,500 | 49 | September 2016 |
| GAN - Construction 2014-3 (County Treasury) | 10,000 | 3,000 | 140 | Paid Sept. 2015 |

Source: The Airport, Sonoma County CAFRs and the County.

Please note that when calculating net revenues available for debt we consider two approaches. The first approach assumes that all debt (including new debt) is parity debt (all have equal security from net revenues). Under this approach there is approximately \$159,000 of net revenues available for new parity debt service. As shown in the debt schedules attached as Appendix A, this would result in bond proceeds of approximately \$2.2 million and a true interest cost (TIC, excludes costs of issuance) of 4.4% and an all-in TIC (includes costs of issuance) of 5.3%.

The second approach assumes that the existing debt could be subordinated to any new debt (the new debt would be paid first and the existing debt would be paid second). This approach would require obtaining approval of the subordination from current debt investors. Under this approach there is approximately \$491,000 of net revenues available for new senior debt service. As shown in the debt schedules attached in Appendix B, this would result in bond proceeds of approximately \$7.3 million and a true interest cost (TIC, excludes costs of issuance) of 4.4% and an all-in TIC (includes costs of issuance) of 4.7%.

Even if the Airport could surpass the considerable credit concerns, current net revenues with a 2.0x coverage requirement cannot support the debt needed for \$10.4 million of projects. There are three possible solutions to the limited debt capacity: (1) delay the projects until net revenues increase, (2) issue short-term bond anticipation note (“BAN”) to be followed with long term bonds once net revenues increase or (3) utilize the strong credit of the County.

Based on discussions with the Airport, delaying projects would limit growth and continue current parking issues. Current parking capabilities are not meeting demand. A publicly issued or privately placed short-term bond anticipation note secured by only net revenues would not be feasible due to the credit risks described above; investors would be unwilling to lend money given the Airport’s uncertain ability to issue GARBs in the future to pay-off the BAN. At this time, the most viable way to finance the Projects is to utilize the strong credit of the County, as discussed in the next section.

Sonoma County Supported Financing

Under the California Constitution debt limit, the County can issue debt without a 2/3rds vote through the “Offner-Dean” exception for current expenses and lease agreements. The County can issue lease financings in the form of Certificates of Participation (COPs) that are paid from rental payments that are budgeted and appropriated. The COPs encumber an asset or property that is leased.

A fixed rate COP issued by the County is the most easily implemented approach to financing the Projects. The COPs would be paid from the Airport’s net revenues. In the event that net revenues were insufficient to pay debt service, the County would be responsible for paying the shortfall. The County’s “AA” credit support would result in a public or private offering with coverage requirements determined by the County and low interest rates. The airport projects could be the leased assets, so a County asset would not be required (this, however, would have to be confirmed with Bond and Tax Counsel). The County also could choose to pledge other assets to minimize capitalized interest, depending on availability.

We would expect that an offering of this size would not impact the County’s credit or debt capacity. The County’s Policy for Debt Management specifies “debt level/debt affordability targets” in Section VIII. Per this section (which is based on rating agency criteria) general fund lease debt service should not exceed 4% to 6% of General Fund Expenditures. As of June 30, 2014, general fund expenditures (including Human Services, Health & Sanitation and Net Transfers) were approximately \$554 million. After subtracting lease debt service currently being paid by the County, the affordability target implies the County can support \$15.8 million to \$26.8 million of annual lease debt service or roughly \$205 million to \$350 million of lease debt. Given the amount and range of the County’s available lease debt capacity, a \$10.4 million financing for the Projects would have minimal impact to the County’s credit or debt capacity.

Attached as Appendix C are debt service schedules for a County issued long-term fixed rate COP that results in \$10.4 million for the Projects at a true interest cost (TIC, excludes costs of issuance) of 4.1% and an all-in TIC (includes costs of issuance) of 4.25%. The following table summarizes the COP structure:

Sonoma County Fixed Rate COPs

| | | | |
|------------------------|------------|---------------------------|--------------|
| Bond Proceeds: | | Structure: | |
| Par Amount | 11,210,000 | Date Issued | 11/15/2016 |
| Premium | 1,363,952 | Term | 30-Years |
| Total | 12,573,952 | First Full Payment | FY 2019-2020 |
| Bond Uses: | | Debt Service Structure | Level |
| Project Fund | 10,400,000 | Construction Period | 24 Months |
| Reserve Fund | 746,000 | Debt Service (D/S): | |
| Capitalized Interest | 1,121,000 | Approximate Annual D/S | 745,000 |
| Costs of Issuance | 250,902 | All-In True Interest Cost | 4.25% |
| Underwriter's Discount | 56,050 | Total Debt Service | 22,224,500 |
| Total | 12,573,952 | Total Interest | 11,014,500 |

Annual debt service is approximately \$745,000 per year and begins in full during fiscal year 2019-2020 (capitalized interest and delayed principal until end of construction). Currently, the Airport's net revenues (\$982,000) less debt outstanding (\$332,000 per year), or \$650,000, is not sufficient to pay this debt service. That said, by fiscal year 2019-2020 all debt outstanding will have been paid, thus freeing net revenues in an amount sufficient to pay the COPs. Also, by fiscal year 2019-2020, additional carriers and enplanements could be realized. It is important to note, however, that economic or other factors could also impact net revenues negatively and could result in debt service shortfalls. Also, it is important to note that we can structure the COPs with a short call so that the bonds can be refunded by GARBs in the event that net revenues and enplanements grow significantly.

Another financing approach could be to utilize a short-term "bridge" financing until fiscal year 2019-2020. There are two possible methods: (1) a BAN issued by the Airport and purchased by the County Treasury or (2) a BAN issued by the County and sold to investors. For a BAN issued by the Airport and purchased by the Treasury, the Treasury would require County backing of the BAN similar to the current Treasury Notes. Our understanding is the Treasury Notes are backed by the General Fund's contribution to roads. It appears that the annual contribution (excluding one-time contributions) less any treasury notes outstanding may not be able to support a \$10.4 million dollar draw if the future bond to take out the BAN is not realized. In addition, there may be legal considerations with this structure (e.g. does the county backing imply the BAN is a County debt; and therefore, does it qualify under a constitutional debt limit exception). Counsel should be consulted before implementing this financing method.

The County could issue a BAN through a Joint Powers Authority (JPA) in the form of a Lease Revenue Bond (LRB), though this likely would necessitate pledging an existing County asset. It is important to note that a County lease BAN would present two primary risks, the first risk is that the County would have to pay off the \$10.4 million BAN from cash or give up the pledged asset because the County could not arrange a takeout financing at maturity. While this is unlikely, the County would need to be prepared to issue County supported COPs to take out the BAN in the event the Airport couldn't issue GARBs.

The second risk is that interest rates rise by the time the takeout bonds need to be issued and this approach becomes more costly than simply issuing long-term bonds at the outset (see following section). The County may be willing to take this risk if it reasonably expects that the Airport could finance a takeout in a few years with GARBs, though we think this has a low potential. The Airport is forecasting new carriers resulting in approximately 208,000 enplanements by 2020, which as discussed above, reduces but does not eliminate the credit difficulties with a stand-alone Airport financing. The low potential benefit of a County lease BAN does not appear to justify the interest rate risk.

One possible alternate solution to a BAN (which could eliminate the legal complications) would be to issue a long-term variable rate COP. The long-term variable rate COP could be paid in full at any time and would function similar to a BAN. In addition, the COP could be multi-modal and converted to long-term fixed rates in the future. The primary advantage of this structure over the fixed rate COPs discussed above is that less expensive short-term rates could be realized during construction and it can be paid off without penalty at any time. This structure would require credit support from a bank however and would involve greater complexity and costs of issuance. These variable rate COPs also have considerable administrative burdens, credit support renewal risk, bank credit risk and interest rate risk (see following section).

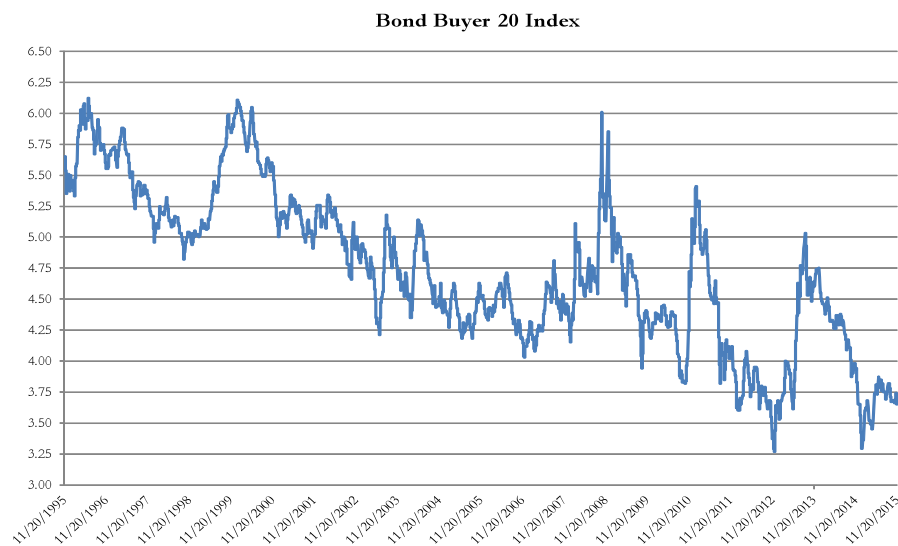
In summary, a long-term fixed rate COP issued by the County offers the most straightforward and feasible means to finance the Projects if the County is comfortable with the Airport's credit risks and/or the projects meet public policy objectives. We would expect that the COPs for the Projects would not impact the County's credit ratings or debt capacity. County issued BANs present interest rate risk with limited associated benefit. A possible alternative short-term financing is a variable rate COP which has administrative burden, interest rate risk and various other risks.

Cash Financing, Interest Rate Risk and Other Financing Considerations

Cash Financing - This memo focuses on financing the Projects with debt. That said, cash currently held at the Airport or the County could pay for the Projects or a portion of the Projects (and therefore reduce the amount paid through debt). Should public policy support the use of cash, the County had approximately \$81.2 million of Cash and Investments as of June 30, 2014. The Airport currently has limited cash available for the Projects.

Interest Rate Risk - The BANs and variable rate COPs discussed above present interest rate risk. A BAN or variable rate COP would delay locking in interest rates through a take-out financing for several years. The County could eliminate this risk

by issuing long-term COPs now and, accordingly, lock-in interest rates at the current historically low levels. The chart to the right of the Bond Buyer 20 Index (20 general obligation bonds rated in the "AA" credit category that mature in 20 years) represents the levels of long-term interest rates.



Project Timing - The Parking Project starting construction during July 2016 and the Terminal Project starting construction in November 2016 can be addressed through a bridge loan for approximately \$2.4 million in the form of a Treasury Note. The Treasury Note would be issued to finance the Parking Project and mature at the start of the Terminal Project. This bridge financing would allow for the bids to be received on the Terminal Project and a subsequent debt issuance during November 2016. The November 2016 issuance would take-out the Treasury Note and finance the Terminal Project.

Alternative Minimum Tax (AMT) Interest Rate - Throughout this memo we assume tax-exempt interest rates. Frequently Airport financings have private use issues; and therefore, may require more costly AMT or taxable interest rates. Tax Counsel will have to review the Projects to determine if AMT or taxable interest rates will be required.

Interest Rate Assumptions - All debt service schedules are based on interest rates as of November 13, 2015 plus 0.25%. Interest rates may vary with changes in market conditions.

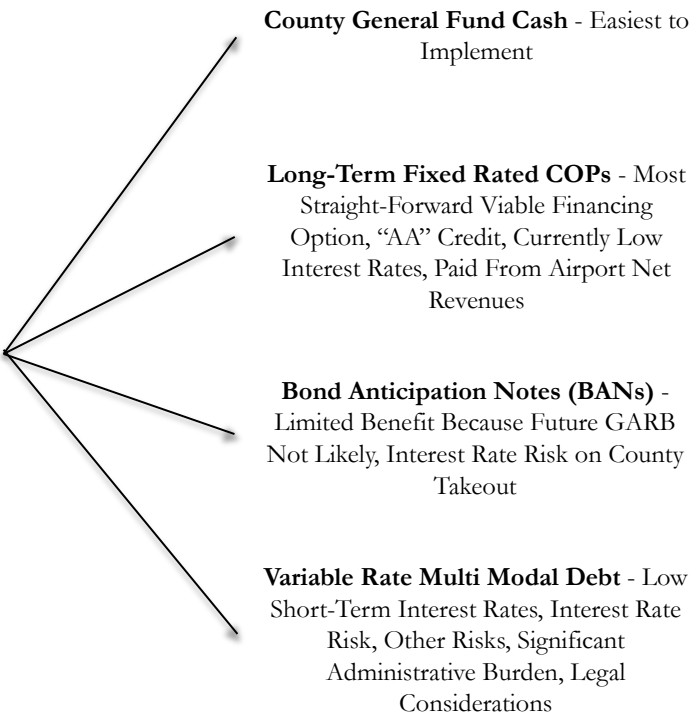
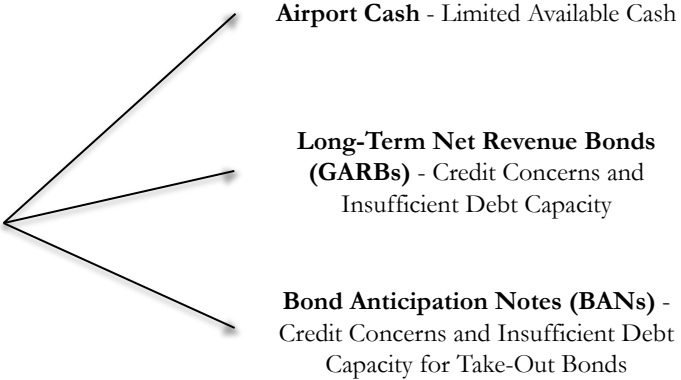
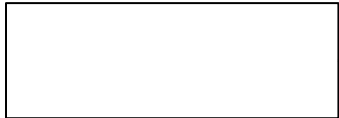
Legal Considerations - We have discussed the financing structures within this memo with Bond Counsel; that said, fuller review of the lease BAN and variable rate COP structures should be completed before proceeding with these structures.

General Obligation Bonds - General obligation bonds could be used to finance the Airport projects. We have not considered general obligation bonds in this memo because of the time and cost associated with obtaining a 2/3rds vote.

Summary

Overall, the Airport issuing long-term debt or BANs presents considerable credit considerations. If the County is comfortable with the Airport's credit or the projects meet public policy objectives, then the most straightforward financing for the project would be a County issued long-term fixed rate COP at the start of construction of the Terminal Project. County issued BANs or variable rate COPs present legal considerations, administrative burden, interest rate risk and various other risks. The following chart is a summary of the financing alternatives and associated key considerations.

-



Appendix A

SOURCES AND USES OF FUNDS

Sonoma County 2015 Airport Financing Analysis
Airport Revenue Bonds Assuming \$159,000 in Annual Debt Service
Market Conditions as of Market Close on Friday, November 13, 2015

Sources:

| | |
|----------------|--------------|
| Bond Proceeds: | |
| Par Amount | 2,435,000.00 |
| Premium | 172,750.30 |
| | <hr/> |
| | 2,607,750.30 |

Uses:

| | |
|-------------------------|--------------|
| Project Fund Deposits: | |
| Project Fund | 2,186,575.30 |
| Other Fund Deposits: | |
| Reserve Fund | 159,000.00 |
| Delivery Date Expenses: | |
| Cost of Issuance | 250,000.00 |
| Underwriter's Discount | <hr/> |
| | 12,175.00 |
| | <hr/> |
| | 262,175.00 |
| | <hr/> |
| | 2,607,750.30 |

BOND SUMMARY STATISTICS

Sonoma County 2015 Airport Financing Analysis
 Airport Revenue Bonds Assuming \$159,000 in Annual Debt Service
 Market Conditions as of Market Close on Friday, November 13, 2015

| | |
|---------------------------------|--------------|
| Dated Date | 11/15/2016 |
| Delivery Date | 11/15/2016 |
| Last Maturity | 11/15/2046 |
| Arbitrage Yield | 4.063479% |
| True Interest Cost (TIC) | 4.454554% |
| Net Interest Cost (NIC) | 4.655011% |
| All-In TIC | 5.328265% |
| Average Coupon | 5.000000% |
| Average Life (years) | 19.115 |
| Duration of Issue (years) | 12.170 |
| Par Amount | 2,435,000.00 |
| Bond Proceeds | 2,607,750.30 |
| Total Interest | 2,327,250.00 |
| Net Interest | 2,166,674.70 |
| Total Debt Service | 4,762,250.00 |
| Maximum Annual Debt Service | 159,000.00 |
| Average Annual Debt Service | 158,741.67 |
| Underwriter's Fees (per \$1000) | |
| Average Takedown | |
| Other Fee | 5.000000 |
| Total Underwriter's Discount | 5.000000 |
| Bid Price | 106.594468 |

| Bond Component | Par Value | Price | Average Coupon | Average Life |
|----------------|--------------|---------|----------------|--------------|
| Bond Component | 2,435,000.00 | 107.094 | 5.000% | 19.115 |
| | 2,435,000.00 | | | 19.115 |

| | TIC | All-In TIC | Arbitrage Yield |
|----------------------------|--------------|--------------|-----------------|
| Par Value | 2,435,000.00 | 2,435,000.00 | 2,435,000.00 |
| + Accrued Interest | | | |
| + Premium (Discount) | 172,750.30 | 172,750.30 | 172,750.30 |
| - Underwriter's Discount | -12,175.00 | -12,175.00 | |
| - Cost of Issuance Expense | | -250,000.00 | |
| - Other Amounts | | | |
| Target Value | 2,595,575.30 | 2,345,575.30 | 2,607,750.30 |
| Target Date | 11/15/2016 | 11/15/2016 | 11/15/2016 |
| Yield | 4.454554% | 5.328265% | 4.063479% |

NET DEBT SERVICE

Sonoma County 2015 Airport Financing Analysis
 Airport Revenue Bonds Assuming \$159,000 in Annual Debt Service
 Market Conditions as of Market Close on Friday, November 13, 2015

| Period Ending | Total Debt Service | Reserve Fund | Net Debt Service |
|------------------|-----------------------|--------------|---------------------|
| 06/30/2017 | 60,875 | | 60,875 |
| 06/30/2018 | 155,875 | | 155,875 |
| 06/30/2019 | 159,000 | | 159,000 |
| 06/30/2020 | 157,000 | | 157,000 |
| 06/30/2021 | 155,000 | | 155,000 |
| 06/30/2022 | 157,875 | | 157,875 |
| 06/30/2023 | 155,625 | | 155,625 |
| 06/30/2024 | 158,250 | | 158,250 |
| 06/30/2025 | 155,750 | | 155,750 |
| 06/30/2026 | 158,125 | | 158,125 |
| 06/30/2027 | 155,375 | | 155,375 |
| 06/30/2028 | 157,500 | | 157,500 |
| 06/30/2029 | 154,500 | | 154,500 |
| 06/30/2030 | 156,375 | | 156,375 |
| 06/30/2031 | 158,000 | | 158,000 |
| 06/30/2032 | 154,500 | | 154,500 |
| 06/30/2033 | 155,875 | | 155,875 |
| 06/30/2034 | 157,000 | | 157,000 |
| 06/30/2035 | 157,875 | | 157,875 |
| 06/30/2036 | 158,500 | | 158,500 |
| 06/30/2037 | 158,875 | | 158,875 |
| 06/30/2038 | 154,125 | | 154,125 |
| 06/30/2039 | 154,250 | | 154,250 |
| 06/30/2040 | 154,125 | | 154,125 |
| 06/30/2041 | 158,625 | | 158,625 |
| 06/30/2042 | 157,750 | | 157,750 |
| 06/30/2043 | 156,625 | | 156,625 |
| 06/30/2044 | 155,250 | | 155,250 |
| 06/30/2045 | 158,500 | | 158,500 |
| 06/30/2046 | 156,375 | | 156,375 |
| 06/30/2047 | 158,875 | 159,000 | -125 |
| | 4,762,250 | 159,000 | 4,603,250 |

Appendix B

SOURCES AND USES OF FUNDS

Sonoma County 2015 Airport Financing Analysis
Airport Revenue Bonds Assuming \$491,000 in Annual Debt Service
Market Conditions as of Market Close Friday, November 13, 2015

Sources:

| | |
|----------------|--------------|
| Bond Proceeds: | |
| Par Amount | 7,590,000.00 |
| Premium | 538,772.40 |
| | <hr/> |
| | 8,128,772.40 |
| | <hr/> |

Uses:

| | |
|-------------------------|--------------|
| Project Fund Deposits: | |
| Project Fund | 7,350,447.40 |
| Other Fund Deposits: | |
| Reserve Fund | 490,375.00 |
| Delivery Date Expenses: | |
| Cost of Issuance | 250,000.00 |
| Underwriter's Discount | <hr/> |
| | 37,950.00 |
| | <hr/> |
| | 287,950.00 |
| | <hr/> |
| | 8,128,772.40 |
| | <hr/> |

BOND SUMMARY STATISTICS

Sonoma County 2015 Airport Financing Analysis
 Airport Revenue Bonds Assuming \$491,000 in Annual Debt Service
 Market Conditions as of Market Close Friday, November 13, 2015

| | |
|---------------------------------|---------------|
| Dated Date | 11/15/2016 |
| Delivery Date | 11/15/2016 |
| Last Maturity | 11/15/2046 |
| Arbitrage Yield | 4.063680% |
| True Interest Cost (TIC) | 4.454449% |
| Net Interest Cost (NIC) | 4.654843% |
| All-In TIC | 4.720148% |
| Average Coupon | 5.000000% |
| Average Life (years) | 19.117 |
| Duration of Issue (years) | 12.174 |
| Par Amount | 7,590,000.00 |
| Bond Proceeds | 8,128,772.40 |
| Total Interest | 7,255,000.00 |
| Net Interest | 6,754,177.60 |
| Total Debt Service | 14,845,000.00 |
| Maximum Annual Debt Service | 490,375.00 |
| Average Annual Debt Service | 494,833.33 |
| Underwriter's Fees (per \$1000) | |
| Average Takedown | |
| Other Fee | 5.000000 |
| Total Underwriter's Discount | 5.000000 |
| Bid Price | 106.598451 |

| Bond Component | Par Value | Price | Average Coupon | Average Life |
|----------------|--------------|---------|----------------|--------------|
| Bond Component | 7,590,000.00 | 107.098 | 5.000% | 19.117 |
| | 7,590,000.00 | | | 19.117 |

| | TIC | All-In TIC | Arbitrage Yield |
|----------------------------|--------------|--------------|-----------------|
| Par Value | 7,590,000.00 | 7,590,000.00 | 7,590,000.00 |
| + Accrued Interest | | | |
| + Premium (Discount) | 538,772.40 | 538,772.40 | 538,772.40 |
| - Underwriter's Discount | -37,950.00 | -37,950.00 | |
| - Cost of Issuance Expense | | -250,000.00 | |
| - Other Amounts | | | |
| Target Value | 8,090,822.40 | 7,840,822.40 | 8,128,772.40 |
| Target Date | 11/15/2016 | 11/15/2016 | 11/15/2016 |
| Yield | 4.454449% | 4.720148% | 4.063680% |

NET DEBT SERVICE

Sonoma County 2015 Airport Financing Analysis
 Airport Revenue Bonds Assuming \$491,000 in Annual Debt Service
 Market Conditions as of Market Close Friday, November 13, 2015

| Period Ending | Total Debt Service | Reserve Fund | Net Debt Service |
|------------------|-----------------------|--------------|---------------------|
| 06/30/2017 | 189,750 | | 189,750 |
| 06/30/2018 | 486,750 | | 486,750 |
| 06/30/2019 | 486,125 | | 486,125 |
| 06/30/2020 | 490,125 | | 490,125 |
| 06/30/2021 | 488,750 | | 488,750 |
| 06/30/2022 | 487,125 | | 487,125 |
| 06/30/2023 | 490,125 | | 490,125 |
| 06/30/2024 | 487,750 | | 487,750 |
| 06/30/2025 | 490,000 | | 490,000 |
| 06/30/2026 | 486,875 | | 486,875 |
| 06/30/2027 | 488,375 | | 488,375 |
| 06/30/2028 | 489,375 | | 489,375 |
| 06/30/2029 | 489,875 | | 489,875 |
| 06/30/2030 | 489,875 | | 489,875 |
| 06/30/2031 | 489,375 | | 489,375 |
| 06/30/2032 | 488,375 | | 488,375 |
| 06/30/2033 | 486,875 | | 486,875 |
| 06/30/2034 | 489,750 | | 489,750 |
| 06/30/2035 | 487,000 | | 487,000 |
| 06/30/2036 | 488,625 | | 488,625 |
| 06/30/2037 | 489,500 | | 489,500 |
| 06/30/2038 | 489,625 | | 489,625 |
| 06/30/2039 | 489,000 | | 489,000 |
| 06/30/2040 | 487,625 | | 487,625 |
| 06/30/2041 | 490,375 | | 490,375 |
| 06/30/2042 | 487,250 | | 487,250 |
| 06/30/2043 | 488,250 | | 488,250 |
| 06/30/2044 | 488,250 | | 488,250 |
| 06/30/2045 | 487,250 | | 487,250 |
| 06/30/2046 | 490,125 | | 490,125 |
| 06/30/2047 | 486,875 | 490,375 | -3,500 |
| | 14,845,000 | 490,375 | 14,354,625 |

Appendix C

SOURCES AND USES OF FUNDS

Sonoma County 2015 Airport Financing Analysis
Airport Certificates of Participation
Market Conditions as of Market Close Friday, November 13, 2015

Sources:

| | |
|----------------|---------------|
| Bond Proceeds: | |
| Par Amount | 11,210,000.00 |
| Premium | 1,363,952.15 |
| | <hr/> |
| | 12,573,952.15 |

Uses:

| | |
|---------------------------|---------------|
| Project Fund Deposits: | |
| Project Fund | 10,400,000.00 |
| Other Fund Deposits: | |
| Reserve Fund | 746,000.00 |
| Capitalized Interest Fund | <hr/> |
| | 1,121,000.00 |
| | 1,867,000.00 |
| Delivery Date Expenses: | |
| Cost of Issuance | 250,000.00 |
| Underwriter's Discount | <hr/> |
| | 56,050.00 |
| | 306,050.00 |
| Other Uses of Funds: | |
| Additional Proceeds | 902.15 |
| | <hr/> |
| | 12,573,952.15 |

BOND SUMMARY STATISTICS

Sonoma County 2015 Airport Financing Analysis
Airport Certificates of Participation

Market Conditions as of Market Close Friday, November 13, 2015

| | |
|---------------------------------|---------------|
| Dated Date | 11/15/2016 |
| Delivery Date | 11/15/2016 |
| Last Maturity | 11/15/2046 |
| Arbitrage Yield | 3.476148% |
| True Interest Cost (TIC) | 4.091322% |
| Net Interest Cost (NIC) | 4.406282% |
| All-In TIC | 4.253871% |
| Average Coupon | 5.000000% |
| Average Life (years) | 19.651 |
| Duration of Issue (years) | 12.725 |
| Par Amount | 11,210,000.00 |
| Bond Proceeds | 12,573,952.15 |
| Total Interest | 11,014,500.00 |
| Net Interest | 9,706,597.85 |
| Total Debt Service | 22,224,500.00 |
| Maximum Annual Debt Service | 746,000.00 |
| Average Annual Debt Service | 740,816.67 |
| Underwriter's Fees (per \$1000) | |
| Average Takedown | |
| Other Fee | 5.000000 |
| Total Underwriter's Discount | 5.000000 |
| Bid Price | 111.667281 |

| Bond Component | Par Value | Price | Average Coupon | Average Life |
|----------------|---------------|---------|----------------|--------------|
| Bond Component | 11,210,000.00 | 112.167 | 5.000% | 19.651 |
| | 11,210,000.00 | | | 19.651 |

| | TIC | All-In TIC | Arbitrage Yield |
|----------------------------|---------------|---------------|-----------------|
| Par Value | 11,210,000.00 | 11,210,000.00 | 11,210,000.00 |
| + Accrued Interest | | | |
| + Premium (Discount) | 1,363,952.15 | 1,363,952.15 | 1,363,952.15 |
| - Underwriter's Discount | -56,050.00 | -56,050.00 | |
| - Cost of Issuance Expense | | -250,000.00 | |
| - Other Amounts | | | |
| Target Value | 12,517,902.15 | 12,267,902.15 | 12,573,952.15 |
| Target Date | 11/15/2016 | 11/15/2016 | 11/15/2016 |
| Yield | 4.091322% | 4.253871% | 3.476148% |

NET DEBT SERVICE

Sonoma County 2015 Airport Financing Analysis
 Airport Certificates of Participation
 Market Conditions as of Market Close Friday, November 13, 2015

| Period Ending | Total Debt Service | Reserve Fund | Capitalized Interest Fund | Net Debt Service |
|------------------|-----------------------|--------------|---------------------------------|---------------------|
| 06/30/2017 | 280,250 | | 280,250 | |
| 06/30/2018 | 560,500 | | 560,500 | |
| 06/30/2019 | 560,500 | | 280,250 | 280,250 |
| 06/30/2020 | 745,750 | | | 745,750 |
| 06/30/2021 | 746,000 | | | 746,000 |
| 06/30/2022 | 745,750 | | | 745,750 |
| 06/30/2023 | 745,000 | | | 745,000 |
| 06/30/2024 | 743,750 | | | 743,750 |
| 06/30/2025 | 742,000 | | | 742,000 |
| 06/30/2026 | 744,625 | | | 744,625 |
| 06/30/2027 | 741,625 | | | 741,625 |
| 06/30/2028 | 743,000 | | | 743,000 |
| 06/30/2029 | 743,625 | | | 743,625 |
| 06/30/2030 | 743,500 | | | 743,500 |
| 06/30/2031 | 742,625 | | | 742,625 |
| 06/30/2032 | 741,000 | | | 741,000 |
| 06/30/2033 | 743,500 | | | 743,500 |
| 06/30/2034 | 745,000 | | | 745,000 |
| 06/30/2035 | 745,500 | | | 745,500 |
| 06/30/2036 | 745,000 | | | 745,000 |
| 06/30/2037 | 743,500 | | | 743,500 |
| 06/30/2038 | 745,875 | | | 745,875 |
| 06/30/2039 | 742,125 | | | 742,125 |
| 06/30/2040 | 742,250 | | | 742,250 |
| 06/30/2041 | 741,125 | | | 741,125 |
| 06/30/2042 | 743,625 | | | 743,625 |
| 06/30/2043 | 744,625 | | | 744,625 |
| 06/30/2044 | 744,125 | | | 744,125 |
| 06/30/2045 | 742,125 | | | 742,125 |
| 06/30/2046 | 743,500 | | | 743,500 |
| 06/30/2047 | 743,125 | 746,000 | | -2,875 |
| | 22,224,500 | 746,000 | 1,121,000 | 20,357,500 |



Sonoma County Airport – Organizational Assessment Summary of Findings and Recommendations (December 2, 2015)

Overview

The Personnel Perspective was asked to conduct an organizational assessment for the Charles M. Schulz Sonoma County Airport. The purpose of the assessment was to evaluate the organization and staffing of the Airport to ensure they are effectively positioned to meet both current and future (expanding) needs. Planned growth goals of the Airport will result in double the number of daily flights and passenger loads.

Extensive interviews were conducted with Airport management as well as employees across the organization. The assessment identified a variety of critical issues, necessitating short and long-term changes to ensure that the Airport is equipped to meet both current and future requirements.

The following is a summary of the overall findings and recommendations for each segment of the Airport organization.

MANAGEMENT

Overview / Key Responsibilities:

The Airport Manager currently has five direct reports: the Assistant Airport Manager, Administrative Aide, Marketing Specialist, Right of Way Agent II, and Department Analyst (extra help). The Airport Manager's time is primarily spent in meetings, managing major projects, leading staff, managing the budget process and implementing policies and procedures.

The Assistant Airport Manager primarily manages Airport Operations and Security. The majority of the Assistant Airport Manager's time is spent in meetings related to compliance, construction and regulations. During this organizational assessment project, the Airport Operations Supervisor (reporting to the Assistant Airport Manager) resigned and the position was recruited and filled with an internal candidate. In the interim, the Assistant Airport Manager managed daily Airport Operations.

Current Situation and Needs:

The Airport Manager has a large number of direct reports combined with a workload that gives him limited time to provide critical supervisory support and oversight. The overall workload, combined with the amount of time spent in meetings and "fighting fires" also leaves insufficient time for adequate planning, documentation, proactive communication and the implementation of some initiatives.



Additional Needs as the Airport Expands:

As the Airport expands, the Airport Manager and Assistant Airport Manager will have even less time to manage daily operations and to provide supervision and leadership to their growing number of staff. It will be imperative that they have the bandwidth to manage at the higher/broader level that will be required of them, particularly the Airport Manager.

Recommendations:

Short Term:

- Hire an additional “administrative” Manager to report to the Airport Manager. This new position can assume the management and supervision of Marketing, Property and Administration from the Airport Manager, while the Assistant Manager retains the responsibility for managing Airport Operations and Security. The addition of this position is critical in the short-term to support the Airport Manager in efficiently meeting the current needs of the Airport, and to position him (and the overall Airport operation) to meet longer-term needs as the Airport expands.

OPERATIONS

Overview / Key Responsibilities:

The Airport Operations Specialists currently perform Operations duties, AARF (fire -- first responders), Security, and Maintenance functions. The Airport Operations staff is a fairly new team, with most having three or fewer years of experience. The former Airport Operations Supervisor indicated that it takes five years of on-the-job experience to gain adequate knowledge of Airport Operations. Over the last two years, the team has lost all but one of their more experienced personnel (mostly due to retirements), and the one remaining is retiring in January 2016.

Current Situation and Needs:

The Airport Operations Specialists are pulled in many directions simultaneously, impacting their ability to be effective. There is a potential need to be more specialized to increase efficiency and effectiveness, thereby increasing productivity and decreasing costs. Specific examples and areas of concern are noted below:

Operations: The Airport Operations team is responsible for the operational needs of the Airport. An Operations Specialist is required by TSA and FAA regulations and customer service needs to dedicate approximately 1.25 hours of duty time to the terminal area/firehouse per each airline flight. At the current airline activity level (seven departures per day), the Operations unit must dedicate a minimum of 8.75 hours per day to those activities alone. As commercial service grows, this number will increase. Operations duties include FAA inspections of the runways, taxiways, ramps, lighting systems, navigational aids, and wildlife patrols. The Airport is required to perform airfield inspections a minimum



of twice per day (one daytime and one nighttime), and additional inspections as field conditions require (e.g., after pilot reports, aircraft incidents, changing conditions due to weather, use or other impacts). In addition to the required inspections, the Operations team is the primary unit tasked with providing escorts to non-badged persons around the Airport (contractors, inspectors, potential tenants, etc.). Their duties also include airfield repair and maintenance items such as lighting repairs, pavement marking, sweeping, mowing safety areas, sign repairs, navigation equipment repairs and inspections, performing weather observations when FAA equipment is out of service, hangar inspections, gate repair and maintenance, and filing field condition reports with the FAA. Finally, they can be tasked with soliciting bids for various airfield projects, such as perimeter fence repairs, lighting upgrades, sign replacements, etc.

AARF (Fire): The Duty Person is the only Airport Operations staff member on-site between the hours of 5:00 a.m. to 7:00 a.m. and approximately 6:00 p.m. to midnight. Currently, there are two flight departures and two arrivals during these times. The Operations unit is required to be on standby 15 minutes prior to the airline arrival and again from airline engine start until 15 minutes after departure for FAA regulations. The fire truck takes 30 minutes to refill, so they can't practice on the fire truck when they're alone. The employees aren't comfortable leaving themselves without water in case of an emergency. One person cannot staff the fire truck and help injured people. Being alone at the Airport when flights arrive/depart leaves the employees, passengers, and the facility vulnerable, and that makes the employees uncomfortable. (Note: The overall Fire situation is being addressed separately, and is beyond the scope of this project).

Security: This unit is required by TSA regulations to provide random patrols of the airline operations area and terminal building during airline activity as well as random airport operations area patrols. The Duty Person often has to manage competing security priorities. For example, a potential issue arises if an exterior gate becomes stuck open while the Airport Operations Specialist is in the airline operations area. If there are other Airport Operations personnel on-site, the Duty Person calls the Airport Operations Supervisor to assign someone else to handle the malfunctioning gate. If the employee is the only Airport Operations staff member on-site, the employee has to make the call regarding the security priority. The Duty Person cannot be in two places at one time. (Note: The overall security situation is being addressed separately, and is beyond the scope of this project).

Maintenance: There are 60 buildings on the Airport property. The majority of employee time is spent on "emergency" maintenance, providing quick fixes for issues that arise. Work orders are secondary and (by necessity) preventive maintenance has become a low priority. The team is trying to rebuild the relationships between the Airport and the longer-term hangar tenants. There is a lack of faith by the tenants that things will get done and that follow-through will occur. This puts an important stream of Airport revenue at risk.



Training/Practice: The Airport Operations team is responsible for responding to airfield emergencies, and they receive the minimum requirement of training. The employees do not feel that they have enough time to train/practice on the fire truck to be comfortable responding to emergencies. They feel responsible for people's lives, but not trained adequately to be confident in emergency response. There are also concerns about the administrative aspects of training, including scheduling, timeliness and documentation. (Note: As noted above, the overall Fire situation is being addressed separately, and is beyond the scope of this project).

Additional Needs as the Airport Expands:

Airport expansion will create a need for additional Airport Operations Specialists. Security requirements will increase, and the additional flights will lead to more passengers, more security incidents, and more maintenance issues.

Airport expansion will also create a need for the Airport Operations Supervisor to become more "supervisory" and less of a "working supervisor" to ensure that the Airport Operations Unit is well-managed. This will necessitate both staffing and training considerations.

Recommendations:

Short-term: It is critical that the staffing concerns in Operations be addressed before Airport expansion occurs. The following actions are recommended in the short-term:

- With the promotion of one Airport Operations Specialist to Airport Operations Supervisor, and the additional retirement in January 2016, the hiring of an Airport Operations Specialist is a very high priority.
- Add an additional Operations Specialist position by the end of 2015. This has been included in the quarterly adjustments for the Airport Division.
- Add a dedicated Maintenance position by 2Q 2016.
- Consider the experience mix of the current team when making staffing decisions.
- Make Airport Operations staff training and retention an ongoing focus. In particular, until there is a long-term resolution to the concerns around fire safety, increase current fire safety training to help ensure the safety of Airport passengers, visitors and personnel.
- The recommended addition of an "administrative" Manager (see "Management" section above) should help relieve the administrative issues related to training, including scheduling, documentation, and follow-up.



Longer-term: In order to meet the needs of an expanded Airport, the following is recommended:

- Consider implementing more levels of Airport Operations Specialists. The Airport is currently paying the same rate for all task levels, because there is only one level of Airport Operations Specialist. This change could potentially result in reduced payroll expenses. It is recommended that three levels be considered: Trainee, Airport Operations Specialist, and a “Lead” or “Senior” Operations Specialist (based on qualifications).
- Look further at the ongoing roles and responsibilities of the Airport Operations Specialists, particularly as the Airport expands and the operational needs evolve.
- Add additional Airport Operations Specialists to meet the increased need. Build to a staffing level where there are two people on duty at all times. Including the requested Operations Specialist position in the 2015 quarterly adjustment, our recommendation is to add a total of three additional Operations Specialists to meet this recommendation. (Note: The specific needs in the future may be impacted by the resolution of the Fire situation.)
- Support the Airport Operations Supervisor with additional training and development as the supervisory role increases.
- Add a second dedicated Maintenance position.

MARKETING

Overview / Key Responsibilities:

This is a Marketing Unit of one person, the Marketing Specialist. The basic duties of the position appear to be handled well, despite a “busy” workload.

Current Situation and Needs:

There is a lack of administrative support for this position, impacting the employee’s ability to perform more of the higher-level and proactive components of the position. This includes building relationships within the community, overseeing 29 volunteers for the terminal building, building the In-Terminal Advertising program (generating revenue), creating a Crisis Plan, and assisting the Airport Manager with new airline attraction.



Additional Needs as the Airport Expands:

The Airport Manager will have less time for certain marketing activities, including focusing on attracting new airlines. This will create different needs from the Marketing Unit.

Recommendations:

Short-term:

- Remove some clerical responsibilities from the position, freeing up the incumbent employee to do more of the higher-level components of the job.
- Review the position further to meet the Airport's growing Marketing needs.

PROPERTY

Overview / Key Responsibilities:

The Property Unit is also a unit of one person, the Right of Way Agent II. The primary roles of this position are the coordination and negotiation of Airport concession tenant agreements and Airport real estate expansions. Despite a "busy" workload, the basic duties of the position appear to be handled well, with the exception of ongoing filing and organization.

Current Situation and Needs:

There is a lack of administrative support, impacting the employee's ability to perform more of the higher-level and proactive components of the position. This includes pursuing new concession tenants and new on-airport advertising customers (both revenue generators).

There is also a concern that the Right of Way Agent II may not be the correct classification for the Airport's needs in the Property area.

Additional Needs as the Airport Expands:

With an expanding Airport, the Airport Manager will have even less time to focus on Property-related activities, including negotiating Airport concession tenant agreements and real estate acquisitions. This will create different needs from the Property Unit.

Recommendations:

Short-term:

- Remove some clerical responsibilities from the position, freeing up the employee to do more of the higher-level components of the job.



- Review the position further to meet the Airport's growing Property needs.

ADMINISTRATION

Overview / Key Responsibilities:

There are currently four positions designated as General Office support: Administrative Aide; Department Analyst (temporary extra help – two days per week); Office Assistant II (new position added in 2014); and Senior Office Assistant. (Note: Personnel/Finance tasks are currently performed by TPW Administration staff and were not included in this review.)

Administrative Aide: Staffing for this position has been in transition this year. Due to organizational changes outside of the Airport, the long-term incumbent was removed from the Unit and there was a loss of historical information/knowledge with her departure. As this study was in process, there was a new Administrative Aide that needed time to get up-to-speed. That employee has now retired and the previous employee has returned.

Department Analyst (temporary extra help): Due to the volume of work, the Department Analyst was hired temporarily as extra help to assist the Airport Manager with high-level administrative needs.

Office Assistant II: The current incumbent has the ability and bandwidth to take on additional tasks and had begun to do so during this project, including increased assistance in security badge administration. Dependent upon staffing and organizational decisions (see recommendations below) this position may be called upon to take on additional tasks, including the administration of the training program for Airport Operations and assisting Marketing and Property with their administrative needs.

Senior Office Assistant: This position is primarily responsible for Security Administration. The incumbent is no longer available to assist with other general office administration duties. During this project, the position went through a Classification Review. The Personnel Perspective assessment also found that the position appears to be working within the classification.

Current Situation and Needs:

The workload in the administrative area is high, and there is potential for additional workload from other Airport areas as noted earlier in this report.

Multiple tasks assigned to the Administrative Aide (including the daily administration of Tenant Leases and Accounts Receivable) take up significant time and prevent the employee from providing higher-level administrative assistance to the Airport Manager.



TSA requirements (e.g., relating to separation of duties) impact how duties are organized and assigned across the administrative staff. TSA required separation of duties mandate that one person conducts the ID verification and collection of the initial forms and paperwork; a second person is required to review, approve and authorize the issuance of the ID badge; while a third person is required to perform the issuance and training. The Senior Office Assistant currently spends approximately 74% of their time on security administration and 26% of their time on general administrative duties. The Administrative Aide spends approximately 11.5% of their time on badging assistance and the Office Assistant spends approximately 9.5% of their time on badging assistance.

Additional Needs as the Airport Expands:

As the Airport expands there will be an ongoing increase in workload in the administrative area. However, it is anticipated that this increase will not be as great as that in the Operations area.

Increased management roles and responsibilities related to Airport expansion will also impact the requirements of the administrative staff. For example, as the Assistant Airport Manager gets busier due to Airport growth, additional security duties may be delegated to the Senior Office Assistant. Additionally, TSA and FAA have increased regulatory compliance items for Airport inspections, security plan, certification manual, emergency plans, training requirements, and record keeping. Finally, County reporting and compliance areas have increased as well to comply with new procedures for EFS, accounts receivables, accounts payable, training requirements etc. All of these items take up more and more staff time on top of other operations needs for the Airport.

Recommendations:

Short-term:

- Add an additional Senior Office Assistant in the security area. The addition of this position addresses the security workload and efficiency issues. Due to a required separation of duties, the Assistant Airport Manager has been required to complete multiple tasks that could be handled by a second Senior Office Assistant.
- Eliminate the temporary Department Analyst as the ongoing workload issues are addressed by the addition of the Senior Office Assistant as noted above, as well as the addition of the “administrative” Manager.

Longer-term:

- Address the overall administrative workload and efficiency issues by adding an additional Senior Office Assistant. The addition of this position will allow for a more effective distribution and separation of duties across the administrative staff and will provide much-needed additional



administrative support to Airport management. The addition of this position will also help alleviate issues raised in the Property, Marketing and Operations areas. Adding this position will also help position the administrative staff for anticipated future growth.

- Once the additional positions are added, shift duties across the Administrative area as appropriate.
- Continue to assess the flow and distribution of duties across the Administrative area, including the support this team is providing to other areas (e.g., Management, Marketing, Property, Operations) to ensure maximum effectiveness and efficiency.

SUMMARY OF RECOMMENDATIONS

We recommend adding the following positions (in phases) as illustrated in the graph below and in the attached organizational charts.

| <u>Add:</u> 1 Airport Operations Specialist (end of 2015) 1 Maintenance Worker (mid 2016) | <u>Add:</u> 1 Manager 1 Senior Office Assistant | <u>Add:</u> 1 Airport Operations Specialist 1 Maintenance Worker | <u>Add:</u> 1 Airport Operations Specialist 1 Senior Office Assistant |
|---|---|--|---|

In addition, as noted in the report, the following positions may warrant further classification studies to meet the expanding needs:

- Marketing Specialist
- Right of Way Agent II